

# SYLLABUS &

SYLLABUS &  
PROCEEDINGS SUMMARY

## AMERICAN PSYCHIATRIC ASSOCIATION 2006 ANNUAL MEETING



# PROCEEDINGS SUMMARY

TORONTO, CANADA ♦ MAY 20-25, 2006

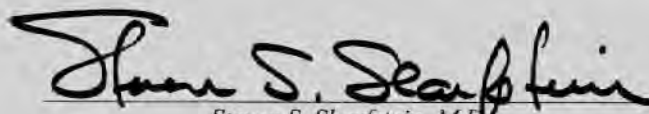
**A CERTIFICATE OF ATTENDANCE  
AND DAILY ACTIVITY LOG  
FOR YOUR RECORDS**

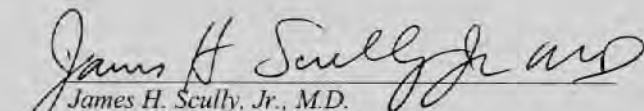
*The American Psychiatric Association certifies that*

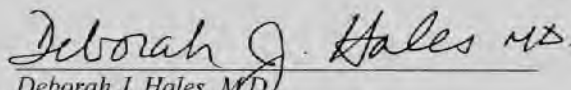
---

*has participated in the educational activity titled  
159th Annual Meeting of the APA  
From Science to Public Policy: Advocacy for Patients and the Profession  
in Toronto, ONT, Canada, on May 20-25, 2006*

*and is awarded \_\_\_\_\_ AMA PRA Category 1 Credit(s)<sup>TM</sup>*

  
*Steven S. Sharfstein, M.D.  
APA President*

  
*James H. Scully, Jr., M.D.  
Medical Director and CEO*

  
*Deborah J. Hales, M.D.  
Director, Division of Education*

*The American Psychiatric Association (APA) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.*

*The APA designates this educational activity for a maximum of 66 AMA PRA Category 1 Credits<sup>TM</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.*

*For nonphysician professionals: The American Psychiatric Association certifies that this registrant has participated in the educational activity titled 159<sup>th</sup> Annual Meeting of the APA, in Toronto, ONT, Canada, on May 20-25, 2006. This activity was designated for 66 AMA PRA Category 1 Credits<sup>TM</sup>.*

[See reverse side for Daily Log]



## **American Psychiatric Association Continuing Medical Education Requirement**

### **APA Continuing Medical Education Requirement**

By referendum in 1974, the membership of the American Psychiatric Association (APA) voted to have participation in Continuing Medical Education activities be a condition of membership. The CME requirement aims at promoting the highest quality of psychiatric care through encouraging continuing professional growth of the individual psychiatrist.

In May 1976, the Board of Trustees endorsed the following standards of participation in CME activities: All APA members in the active practice of psychiatry must participate in at least 150 hours of continuing medical education activities during a three-year reporting period, of which a minimum of 60 hours must be in category 1 CME activities. Category 1 activities are those programs sponsored by organizations accredited for CME and that meet specific standards of needs assessments, planning, professional participation and leadership, and evaluation and other activities which meet the AMA definition of category 1. The 90 hours remaining after the category 1 requirement has been met may be reported in either category 1 or category 2, which includes meetings not designated as category 1, reading, research, self-study projects, consultation, etc. APA members residing outside of the United States are required to participate in 150 hours of CME activities during the three-year reporting period, but are exempt from the categorical requirements.

Life members and Life Fellows who were elevated to life status during or prior to May 1976 are exempt from the CME requirement. Members achieving those member classes after May 1976 are subject to the CME requirement. Members who are retired are exempt from the requirement when the APA receives notification of their retirement.

### **Obtaining an APA CME Certificate**

The APA CME certificates are issued to members upon receipt of a report of CME activities. You may report your activities to the APA in print or electronically using the official APA report form. This form may be obtained from the APA Department of Continuing Medical Education, 1000 Wilson Boulevard, Suite 1825, Arlington, VA 22209, (703) 907-8661, or on the APA web site at [www.psych.org](http://www.psych.org).

Members may also receive the CME certificate by submitting a copy of your current *Physician's Recognition Award (PRA)* from the American Medical Association to the APA Department of CME at the address listed above.

### **Reciprocity With AMA**

By completing the APA's CME membership requirement and qualifying for the APA CME certificate, members may also qualify for the standard *Physician's Recognition Award (PRA)* of the American Medical Association (AMA). APA provides documentation of reciprocity, which can be forwarded (with a fee) to the AMA.

### **APA Report Form**

In addition to category 1 CME activities designated by accredited sponsors, the APA recognizes these additions to category 1 credit as fulfilling the requirement: articles published in peer-reviewed journals (journals included in the Index Medicus) – 10 category 1 credits for each article, 1 article per year; poster preparation for an exhibit at a medical meeting designated for AMA PRA category 1 credit, including published abstract – 5 category 1 credits per poster, 1 presentation per year; teaching, e.g., presentations for activities designated for AMA PRA category 1 credits – 2 credit hours for preparation and presentation of new and original lecture or teaching material designated for category 1 credit by an accredited sponsor, to a maximum of 10 credits per year; medically-related degrees, such as the Master's in Public Health – 25 AMA PRA category 1 credits following award of the advanced degree.

APA members may claim 25 hours of category 1 CME credit for successful completion of Part I and 25 hours for the successful completion of Part II of the examinations of the American Board of Psychiatry and Neurology (ABPN), and the Royal College of Physicians and Surgeons (of Canada). Members may also claim 25 hours for successful completion of the ABPN recertification examination. Members may claim 25 hours for successful completion of the certifying examination in Addiction Psychiatry, Administrative Psychiatry, Child Psychiatry, Forensic Psychiatry, Geriatric Psychiatry, and Psychosomatic Psychiatry.

Members may claim 50 hours of category 1 CME credit for each full year of training in a program that has been approved by the Accreditation Council for Graduate Medical Education (ACGME). Following completion of an ACGME approved residency, APA members are considered to be in compliance with the APA CME requirement. Reporting should begin with three years.

By signing a CME Compliance Postcard, which the APA will send you on request at the end of each three-year reporting cycle, members may demonstrate that they have fulfilled the APA requirement; compliance will be recorded, but a certificate will not be issued.

**The APA maintains a record of member CME compliance and reporting. However, the APA does not keep detailed or cumulative records for members; members are responsible for maintaining their own records. Members may maintain and track their CME activities on the APA web site, [www.psych.org/cme](http://www.psych.org/cme), through the CME recorder.**

---

**SYLLABUS  
AND  
SCIENTIFIC PROCEEDINGS**

**IN SUMMARY FORM**

**THE ONE HUNDRED AND FIFTY-NINTH  
ANNUAL MEETING OF THE  
AMERICAN PSYCHIATRIC ASSOCIATION**

---

**Toronto, ONT, Canada  
May 20-25, 2006**

**\$29.95**

**© American Psychiatric Association, 2006  
Published by**

**AMERICAN PSYCHIATRIC ASSOCIATION**

**1000 Wilson Boulevard, Suite 1825**

**Arlington, VA 22209**

**May 2006**

*This page intentionally left blank*

## TABLE OF CONTENTS

CME Certificate and Requirements .....	i
Foreword .....	v
Paper No. 1-Presidential Address .....	1
Industry-Supported Symposia .....	3
Scientific and Clinical Report Sessions .....	68
Symposia .....	128
Workshops .....	281

### OTHER FORMATS ALPHABETICALLY

Advances in Mood Disorders .....	345
Advances in Personality Disorders .....	347
Advances in Psychodynamic Psychotherapy .....	349
Advances in Psychopharmacology .....	350
Advances in Research .....	351
Advances in Schizophrenia .....	352
Clinical Case Conferences .....	353
Continuous Clinical Case Conferences .....	354
Debate .....	355
Focus Live .....	356
Forums.....	357
Lectures .....	362
Medical Updates .....	370
Presidential Symposia .....	372
Research Advances in Medicine .....	375
Roundtable Discussion .....	376
Author Index .....	377



## SCIENTIFIC PROGRAM COMMITTEE

MARIAN I. BUTTERFIELD, M.D., *Chairperson*, Durham, NC  
DAVID M. MCDOWELL, M.D., *Vice-Chairperson*, New York, NY  
TANYA R. ANDERSON, M.D., Chicago, IL  
DAVID A. BARON, D.O., Philadelphia, PA  
JOSEPHA A. CHEONG, M.D., Gainesville, FL  
KATHRYN M. CONNOR, M.D., Chapel Hill, NC  
CATHERINE C. CRONE, M.D., Falls Church, VA  
RICHARD E. D'ALLI, M.D., Durham, NC  
DONALD M. HILTY, M.D., Sacramento, CA  
LESLIE A. HORTON, M.D., Los Angeles, CA  
SHEILA JUDGE, M.D., Philadelphia, PA  
STEPHANIE LEMELLE, M.D., New York, NY  
CHRISTINE E. MARX, M.D., Durham, NC  
PHILIP R. MUSKIN, M.D., New York, NY  
ANTHONY J. ROTHSCHILD, M.D., Worcester, MA  
KENNETH R. SILK, M.D., Ann Arbor, MI  
HARVEY STABINSKY, M.D., J.D., Harrison, NY  
PRAKASH THOMAS, M.D., Hamden, CT  
LINDA L.M. WORLEY, M.D., Little Rock, AR

### Consultants

ROBERT J. BOLAND, M.D., Providence, RI  
LEAH J. DICKSTEIN, M.D., Louisville, KY  
MARION ZUCKER GOLDSTEIN, M.D., Buffalo, NY  
GEETHA JAYARAM, M.D., Baltimore, MD  
SUSAN J. LIEFF, M.D., Toronto, ONT, Canada  
ANAND PANDYA, M.D., New York, NY  
NYAPATI R. RAO, M.D., Massapequa, NY

## COUNCIL ON MEDICAL EDUCATION AND LIFELONG LEARNING

RICHARD BALON, M.D., *Chairperson*, Rochester Hills, MI

## COMMITTEE ON CME/LIFELONG LEARNING

DAVID B. MALLOTT, M.D., *Chairperson*, Baltimore, MD  
CARLYLE H. CHAN, M.D., Milwaukee, WI  
LEAH J. DICKSTEIN, M.D., Louisville, KY  
THOMAS A.M. KRAMER, M.D., Chicago, IL  
MARK H. RAPAPORT, M.D., La Jolla, CA  
EUGENE J. SCHNEIDER, M.D., Rochester, NY  
JEFFREY S. AKMAN, M.D., *Corresponding Member*,  
Washington, D.C.  
DANIEL K. WINSTEAD, M.D., *Corresponding Member*,  
New Orleans, LA

## COMMITTEE ON COMMERCIAL SUPPORT

DAVID M. MCDOWELL, M.D., *Chairperson*, New York, NY  
PETER B. GRUENBERG, M.D., Beverly Hill, CA  
MICHAEL D. JIBSON, M.D., PH.D., Ann Arbor, MI  
JOAN A. LANG, M.D., St Louis, MO  
SCOTT MASTERS, M.D., New York, NY  
TREVOR R.P. PRICE, M.D., Philadelphia, PA  
DAVID B. MALLOTT, M.D., Baltimore, MD  
ANTHONY J. ROTHSCHILD, M.D., Worcester, MA

## MEDICAL DIRECTOR'S OFFICE

JAMES H. SCULLY, JR., M.D., *Medical Director and CEO*  
ROSALIND KEITT, *Chief-of-Staff*

## ANNUAL MEETINGS DEPARTMENT

CATHY L. NASH, C.M.P., *Director, Division of Education*  
VERNETTA V. COPELAND, *Associate Director*  
YASHICA L. JOYNER, *Program Assistant*  
AKOSUA B. KANKAM, *Scientific Program Coordinator*  
KAREN BOLTON, *Scientific Program Coordinator*  
BYRON PHILLIPS, *Scientific Program Coordinator*  
ELIZABETH RUMSEY, *Administrator, CME Courses*  
DESTA WALLACE, *Scientific Program Coordinator*

## DIVISION OF EDUCATION

DEBORAH J. HALES, M.D., *Director*  
KATHLEEN DEBENHAM, M.A., *Director, Department of Continuing Medical Education*  
LINDA BUENO, R.N., *Manager for Commercially-Supported CME*

## FOREWORD

This book incorporates all abstracts of the *Scientific Proceedings in Summary Form* as have been published in previous years as well as information for Continuing Medical Education (CME) purposes.

Readers should note that most abstracts in this syllabus include educational objectives, a list of references, and a summary of each individual paper or session.

We wish to express our appreciation to all of the authors and other session contributors for their cooperation in preparing their materials so far in advance of the meeting. Our special thanks are also extended to Akosua Kankam,

Desta Wallace, Karen Bolton, and Byron Phillips in the APA Annual Meetings Department.

Marian I. Butterfield, M.D. *Chairperson*  
David M. McDowell, M.D. *Vice-Chairperson*  
Scientific Program Committee

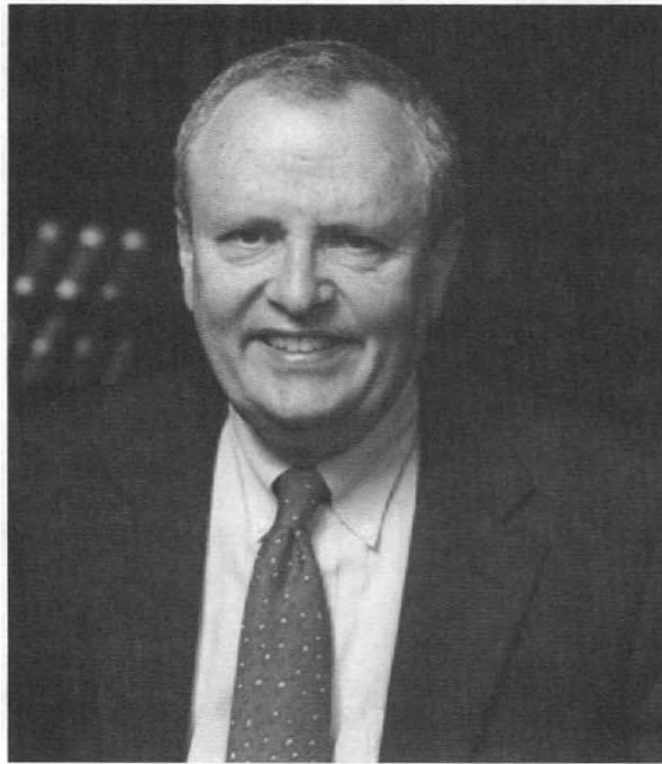
### Full Texts

As an added convenience to users of this book, we have included mailing addresses of authors. **Persons desiring full texts should correspond directly with the authors.** Copies of papers are not available at the meeting.

**EMBARGO:** News reports or summaries of APA 2006 Annual Meeting presentations contained in these program materials may not be published or broadcast before the local time and date of presentation.

The information provided and views expressed by the presenters in this *Syllabus* are not necessarily those of the American Psychiatric Association, nor does the American Psychiatric Association warrant the accuracy of any information reported.

*This page intentionally left blank*



Steven S. Sharfstein, M.D.

## **PRESIDENTIAL ADDRESS**

### **PSYCHOSOMATIC MEDICINE: INTEGRATING PSYCHIATRY AND MEDICINE**

*"Science, Ethics and Economics: Psychiatry Must Lead the Way"*

In my first month as President of the American Psychiatric Association, I found myself on the set of *The Today Show* rebutting Tom Cruise and his anti-psychiatry rant with Matt Lauer the day before. The anti-psychiatry movement in America is alive and well and is a part of a larger anti-science movement in America. Psychiatry is the preeminent medical specialty in America that interfaces with many aspects of the culture war that is going on in America today.

My trip to Guantanamo Bay, Cuba, underscored another major controversy of our time—the psychological abuse, even torture, of detainees in the War on Terror. Major questions have been raised on the inappropriate use of psychiatrists in the process of gathering intelligence from detainees who have no legal rights. The challenge to our medical ethics is clear. For our patients and our practice, we must reform the dysfunctional health care system in the United States. Psychiatrists are in short supply and private and public funding is inadequate. Private insurance underinsures for long-term treatment of patients with serious and persistent mental illness. Medicaid cuts shred the public safety net. Homelessness and incarceration of the mentally ill are the inevitable results. Access to appropriate care for our patients should be a top priority for our advocacy. Every American should have access to quality psychiatric treatment. In matters of science, ethics, and economics, psychiatry must lead the way.

*This page intentionally left blank*

**SATURDAY, MAY 20, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 1—  
NEW AUGMENTATION STRATEGIES IN  
DEPRESSION FOR BETTER OUTCOMES  
Supported by GlaxoSmithKline**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: discuss polypharmacy in the treatment of depression, recruit up-to-date approaches to manage common antidepressant side-effects, address residual symptoms, construct a treatment plan for resistant depression, and incorporate evolving knowledge on adding psychotherapy to pharmacotherapy to optimize treatment outcome.

**No. 1A  
POLYPHARMACY FOR DEPRESSION: HOW  
OFTEN IS IT USED AND WHY?**

Joshua A. Israel, M.D. *University of California, San Francisco, Department of Psychiatry, 4150 Clement Street, #116N, San Francisco, CA, 94121*

**SUMMARY:**

Polypharmacy can be defined as the use of two or more medications to treat the same condition, use of two or more drugs of the same chemical class, or use of two or more drugs with the same or similar pharmacologic actions to treat different conditions. Recent surveys have documented the high frequency of polypharmacy in seriously ill psychiatric patients. The use of multiple medications increases the risks of adverse effects, drug interactions, patient non-compliance and medication errors. Rational polypharmacy is based upon using validated data or empiric clinical evidence, as well as using one medication to counteract the side effect of another. Examples of irrational polypharmacy include medications prescribed for incorrect diagnoses, stuck cross-titrations, inadequate awareness of receptor pharmacology, and responses to insurance pressure. In contrast to the widespread clinical application of polypharmacy, there remains a paucity of controlled clinical trials of polypharmacy in the treatment of depression. Challenges in the study of polypharmacy will be described and clinical research questions that require further exploration will be highlighted.

**No. 1B  
"HOW TO" AUGMENTATION STRATEGIES IN  
RESISTANT DEPRESSION**

Charles DeBattista, M.D. *Stanford University School of Medicine, Psychiatry & Behavioral Sciences, Stanford, CA, 94305-5723*

**SUMMARY:**

**Augmentation Strategies in Resistant Depression**  
The significant majority of patients in acute depression trials fail to achieve remission with monotherapies. Thus, many patients appear to require more than one medication to achieve remission or even adequate response. Augmentation strategies are commonly used in clinical practice but most have been poorly studied. In addition, better studied strategies such as the use of lithium and thyroid augmentation have not been well studied in combination with newer antidepressants. A variety of novel strategies are being investigated as augmenting agents including selective dopamine agonists, sex steroids, norepinephrine reuptake inhibitors, glucocorticoid specific agents, and newer anticonvulsants. In this lecture, the status of augmentation strategies in the treatment of depression is reviewed.

**No. 1C  
WHEN DOES POLYPHARMACY LEAD TO HIGHER  
REMISSION RATES?**

Jonathan Edward Alpert, M.D. *Harvard Medical School, Department of Psychiatry, 50 Staniford Street, Suite 401, Boston, MA, 02114*

**SUMMARY:**

Most patients with Major Depressive Disorder (MDD) do not remit with initial antidepressant monotherapy. Therefore, despite the fact that current treatment guidelines recommend a single medication to initially treat MDD, there is growing support for the use of polypharmacy at treatment initiation to either enhance retention or to increase remission rates. Such initial treatment combinations may create a broader spectrum of action (i.e., a larger proportion of patients initially treated may at least respond if not remit), may address or prevent side-effects that may lead to premature treatment discontinuation, and may lead to pharmacological synergism converting monotherapy responders into combination treatment remitters. Although polypharmacy is more commonly practiced in patients who have failed to respond to monotherapy, the initial lack of response with antidepressant monotherapy may lead many depressed patients with little or no benefit to drop out of treatment, precluding the use of augmentation or combination altogether. In addition, the emergence of certain side-effects (e.g., agitation, insomnia) or persistence of some initial baseline symptoms (e.g., anxiety, insomnia) may also lead to premature discontinuation from monotherapy without pharmacological options to deal with these symptoms. This presentation will review the studies concerning the efficacy and tolerability of combination and augmentation strategies used at the beginning of the treatment of MDD with the goal of enhancing the chances of achieving remission in depression.

**No. 1D  
ADDING PSYCHOTHERAPY: PEARLS FOR  
IMPROVED OUTCOMES**

Amy H. Farabaugh, Ph.D. *Massachusetts General Hospital, Psychiatry, 50 Staniford St., 401, Boston, MA, 02114*

**SUMMARY:**

A majority of depressed patients who are treated pharmacologically in mental health settings receive psychotherapy. Many fundamental clinical questions remain to be fully addressed. In particular, the range of psychotherapies that are effective as antidepressant adjuncts remains to be fully elucidated. In addition, it is unknown whether the two modalities of treatment are most effective when combined during acute treatment, combined at a later point in treatment to consolidate recovery and/or reinforce relapse prevention, or applied sequentially. In so far as residual depressive symptoms and partial or non-response to antidepressant treatment are common clinical problems, controlled trials of psychotherapy in combination with medications are crucial to our understanding of how to optimize depression treatment. This talk will update knowledge of emerging studies concerning combining psychotherapy with medications including studies on cognitive behavioral therapy, interpersonal therapy, well being therapy and short term psychodynamic therapy and highlight what is known and what remains to be learned about combination therapy.

**No. 1E  
PHARMACOLOGICAL ANTIDOTES FOR  
ANTIDEPRESSANT-INDUCED SIDE EFFECTS**

Anita H. Clayton, M.D. *University of Virginia Health System, Department of Psychiatric Medicine, 2955 Ivy Rd, Northridge Suite 210, Charlottesville, VA, 22903*

## SUMMARY:

Antidepressant side effects are major causes of early and late treatment non-adherence. Knowledge of the neurotransmitter pharmacology of antidepressants can contribute considerably to the ability to both predict and minimize adverse effects. Acute side effects such as GI disturbance, agitation, and headache begin with initiation of therapy, before therapeutic effects are evident, and generally resolve without intervention. Adverse effects that begin early in treatment, but may be sustained even after remission of depressive symptoms include sexual dysfunction, sleep disturbance, weight changes, and cognitive/emotional blunting.

Major depressive disorder itself may be associated with similar complaints. Potential long-term side effects must be monitored from diagnosis through treatment, as they may also be residual symptoms of depression. Management strategies include education about healthy behaviors such as good sleep hygiene, an appropriate diet, and regular exercise; minimizing other medications or substances including alcohol and caffeine; maximizing treatment of comorbid conditions and the depression to remission; lowering the dose of the antidepressant or changing the timing of the dose; drug substitution; and/or adding another agent to counteract the adverse effect. Theoretical antidotes will be described, and clinical applicability with supporting data will include possible antidotes: for sexual dysfunction - dopaminergic agents, medications targeting the serotonin autoreceptor, phosphodiesterase-5 inhibitors, and sex steroids; for sleep - trazodone, hypnotics, and antihistamines; for weight changes - dopamine agonists, H<sub>2</sub> blockers, anticonvulsants; and for cognitive/emotional blunting - noradrenergic agents, dopaminergic medications, and thyroid supplementation.

## REFERENCES:

1. Kingsbury SJ, Yi D, Simpson GM: Psychopharmacology: rational and irrational polypharmacy. *Psychiatric Services*. 2001; 5:1033-6.
2. DeBattista C, Schatzberg AF, Drug Augmentation. In *Comprehensive Textbook of Psychiatry*, edited by Sadock BJ, Sadock VA. Philadelphia. Lippincott, Williams & Wilkins, 8th edition, 2005,p3003-3007.
3. 46. M Fava. Augmentation and combination strategies in treatment-resistant depression. *J Clin Psychiatry* 62(suppl 18):4-11, 2001.
4. Pampallona S, Bollini P, Tibaldi G, Kupelnick B, Munizza C: Combined pharmacotherapy and psychological treatment for depression. *Arch Gen Psychiatry* 2004; 61:714-719.
5. Roose SP: Compliance: the impact of adverse events and tolerability on the physician's treatment decisions. *Eur Neuropharmacol* 2003; 13(suppl 3):585-592.

**INDUSTRY-SUPPORTED SYMPOSIUM 2—  
STRATEGIES FOR MAINTAINING  
WELLNESS IN PATIENTS WITH BIPOLAR  
DISORDER: MOVING BEYOND EFFICACY  
TO EFFECTIVENESS**  
Supported by Bristol-Myers Squibb  
Company

## No. 2A

**BRAINS AND GENES: IMPLICATIONS FOR THE  
TREATMENT OF BIPOLAR DISORDER**

Kiki D. Chang, M.D. *Stanford University, Psychiatry, 401 Quarry Road, Stanford, CA, 94305-5719*

## SUMMARY:

Bipolar disorder (BD) is a highly heritable brain disorder with genetic underpinnings. However, many genes of varying degrees of effect are likely to be involved. As genes do not encode behavior, it is relevant to study instead their effect on neurobiological systems. In the past decade, great advances have been made in understanding the underlying neurobiology of BD and how genes may interact with these systems to create risk for BD development. Neuropsychological, histopathological, and *in vivo* imaging studies have elucidated the brain regions and circuits likely to be involved in BD, primarily cortico-limbic circuits and structures. Common genetic polymorphisms in genes such as the serotonin transporter (5-HTT) and brain-derived neurotrophic growth factor (BDNF) genes have been associated with abnormal functioning of these circuits, that when combined with general bipolar risk could lead to BD development. Furthermore, psychotropic medications may modulate these brain circuits and have neurotrophic effects in critical brain areas. Response to these same medications may be dependent on genetic status, and response could eventually be predicted by underlying brain activation patterns, as detected by PET or fMRI. This presentation summarizes the recent advances in the understanding of how genes and neurobiology interact in creating BD and the implications these findings have for current and future treatment of BD across the life span.

## No. 2B

**IMPACT OF PATIENT SATISFACTION WITH  
TREATMENT ON TREATMENT OPTIONS**

Holly A. Swartz, M.D. *University of Pittsburgh, 3811 O'Hara Street, Pittsburgh, PA, 15213*

## SUMMARY:

Patient satisfaction with treatment is strongly related to the readiness of patients to be or stay engaged in psychosocial and pharmacologic treatment, and therefore to symptomatic and functional outcome. Perceived benefits of treatment are not necessarily reflected in clinical-rated measures of psychosocial functioning and quality of life, and therefore, assessment of treatment outcomes should incorporate the patient's perspective. Factors associated with patient satisfaction include the efficacy and adverse effects of treatment, and social support. Patients whose relatives have higher levels of expressed emotion have a more pernicious course of illness. Integrating pharmacologic therapy with family and individual psychotherapy may significantly protect patients from early relapse and from ongoing symptoms.<sup>1</sup> The importance of patient-centered care will be discussed and new data will be presented from a survey of the Depression and Bipolar Support Alliance

## No. 2C

**EVALUATION OF BIPOLAR TRIALS**

Gary S. Sachs, M.D. *Harvard-Massachusetts General Hospital, Department of Psychiatry, 15 Parkman Street, Boston, MA, 02114*

## SUMMARY:

Atypical antipsychotics, used as monotherapy or as adjunctive therapy with mood stabilizers, have shown efficacy and tolerability in managing bipolar disorder, including mixed, manic, and psychotic episodes. Atypical antipsychotics are increasingly being considered for treatment of patients experiencing mixed mania, which is generally less responsive to lithium therapy and more difficult to treat than pure mania. Maintenance treatment of patient with atypical antipsychotics has also proven effective in preventing relapse of manic or depressive episodes. A large-scale study, involving up to 20 treatment centers and about 5000 patients, is currently underway to assess the effectiveness of treatment-strategies in disease-specific

outcomes and is expected to provide valuable insight into optimal management of bipolar disorder.<sup>1</sup>

## No. 2D IMPACT OF MISDIAGNOSIS OF BIPOLAR DISORDER

Claudia F. Baldassano, M.D. *University of Pennsylvania, Department of Outpatient Psychiatry, 3400 Spruce Street, Philadelphia, PA, 19104-3309*

### SUMMARY:

Diagnosing bipolar depression may be difficult: patients with bipolar disorder often present with depression and may underreport previous manic or hypomanic episodes, which may lead to misdiagnosis of unipolar depression.

The consequences of such misdiagnosis can be serious. Treatment of bipolar disorder with antidepressants alone is not efficacious. With misdiagnosis, not only is efficacious treatment with mood stabilizers and appropriate counseling specific to bipolar disorder delayed, but also when such treatment is initiated for patients who have had several episodes of illness, it may be less effective (1). In addition, inappropriate treatment may induce hypomania, mania, or cycling. In order to improve diagnostic clarity, it is important that patients and their family are probed for a history of mania or hypomania (2). Bipolar disorder may also be misdiagnosed as another psychiatric disorder with common symptoms, such as schizophrenia. Diagnosis of bipolar disorder may also be obscured by comorbidities which are common in this patient population, such as substance use disorder and anxiety disorders; comorbidities have a significant impact on the presentation of bipolar disorder.

### REFERENCES:

1. Manji HK, Moore GJ, Chen G: Clinical and preclinical evidence for the neurotrophic effects of mood stabilizers: implications for the pathophysiology and treatment of manic-depressive illness. *Biol Psychiatry* 2000; 48(8):740-54.
2. Miklowitz DJ, Richards JA, George EL, Frank E, Suddath RL, Powell KB, Sacher JA. Integrated family and individual therapy for bipolar disorder: results of a treatment development study. *J Clin Psychiatry*. 2003;64:182-191.
3. Sachs GS. Strategies for improving treatment of bipolar disorder: integration of measurement and management. *Acta Psychiatr Scand Suppl*. 2004;7-17.
4. Hirschfeld RM, Vornik LA. Recognition and diagnosis of bipolar disorder. *J Clin Psychiatry*. 2004;65 Suppl 15:5-9.

## INDUSTRY-SUPPORTED SYMPOSIUM 3— NAVIGATING THE MAZE: UNDERSTANDING METHODS, RESULTS, AND RISKS IN PSYCHIATRIC RESEARCH Supported by Forest Pharmaceuticals, Inc.

### EDUCATIONAL OBJECTIVES:

Understand statistical and clinical significance in the design of clinical trials and how to analyze the results of clinical studies in terms of medical decision making; compare the different methods used to determine the clinical significance of medical research.

Evaluate risk factors in medical research; understand the differences between risk factors and causation; Differentiate between mediators and moderators and the role they play in risk research.

Gain an understanding of the current issues and complexities involved in interpreting the results of clinical trials of psychotropic drugs.

Evaluate the reported risk of suicidality associated with antidepressant treatment in children and adolescents; recognize the risks of untreated depression; gain a better understanding of the pharmacological and psychosocial treatment options for depression in this population.

Develop strategies for effective medical decision making in cases where the scientific literature lacks sufficient evidence to support any particular medication or treatment; Gain an understanding of treatment options for geriatric patients with anxiety disorders where little data exist regarding effective treatments.

## No. 3A ASSESSING STATISTICAL AND CLINICAL SIGNIFICANCE IN MEDICAL RESEARCH

David J. Kupfer, M.D. *University of Pittsburgh, Department of Psychiatry, 3811 O'Hara Street, Room 210, Pittsburgh, PA, 15213-2593*

### SUMMARY:

Understanding "significance" in drug trials is the key to translating medical research into clinical decision making. Clinical studies are considered "positive" if they are able to detect statistically significant differences between the drug being evaluated, and a placebo or active comparator. Investigators will increase sample size, pool subjects from different studies, or combine studies using meta-analysis in the hopes of obtaining results which show statistical significance. However, "statistical significance" is not necessarily equivalent to "clinical significance." Clinical significance requires that the study demonstrate that the difference is powerful enough to impact medical decision making and patient management. Understanding the different measures of clinical significance is critical to analyzing research in terms of determining its impact on clinical practice. Statistical methods necessary to clarify the definitions will be presented and the interactions between risk factors will be discussed. This program will further explore the methodology behind clinical trials and help physicians more fully appreciate the concepts of statistical and clinical significance in medical research.

## No. 3B ALL RISK FACTORS ARE NOT CREATED EQUAL: THE IMPORTANCE OF DEFINING AND INTERPRETING RISK ON MEDICAL DECISION MAKING AND PATIENT CARE

Helena C. Kraemer, Ph.D. *Stanford University, Department of Psychiatry, 401 Quarry Road Room 3100, Stanford, CA, 94305*

### SUMMARY:

Assessing risk is central to medical research. While the literature is replete with studies investigating various factors that increase (or decrease) risks associated with different diseases, fundamental questions about "risk" and how risk is evaluated are largely left unexplored. What is risk? What is a risk factor? What risk factors are important and why? These are all questions that need to be addressed so that clinical studies can be accurately interpreted and the results integrated into medical practice. This presentation will define risk and how it relates to clinical research, as well as provide an overview of the different types of risk factors. In addition, moderators and mediators, variables which largely affect clinical trial results and analyses and are oftentimes not clearly distinguished between or defined in statistical approaches, will be discussed. The program will aid both clinicians and researchers in determining the nature of risk and risk factors in clinical studies, understanding risk factors



and how they can benefit patient care and medical decision making, and improve the ability to assess critically the findings from various studies and discriminate between those with contradictory results.

### No. 3C

#### **DETERMINING EFFICACY: SOUND CLINICAL TRIAL DESIGN AND INTERPRETATION**

Cornelius Katona, M.D. *University of Kent, KIMHS, Canterbury, Kent, CT2 7PD, United Kingdom*

#### **SUMMARY:**

Determining the absolute efficacy of any drug can be difficult, but evaluation of psychotropic drugs can be particularly challenging. Most psychiatric illnesses are not readily biologically quantifiable, and are assessed using a variety of rating scales that can lack both reliability and validity. Many psychiatric disorders also are comorbid with other mental illnesses making it difficult to isolate the effects of a drug on any individual disorder. In addition, while many clinical studies can suffer from the unpredictable effects of the placebo response, this phenomenon appears to be especially problematic in trials investigating psychotropic drugs. These issues can complicate the analysis of any individual trial, and hamper meaningful comparisons between studies that might use different rating scales and efficacy measures. A standardized method of reporting outcomes is needed so that clinicians can reliably gauge the effectiveness of psychotropic drugs and accurately compare drugs across different studies. Application of the potency measure, "number needed to treat" (NNT), is one way to assist efficacy comparisons across trials, and focus the interpretation of results onto clinical rather than merely statistical significance. This program will review the difficulties that arise when interpreting the results of clinical studies of psychotropics, using drug treatment of dementia as an example, and suggest approaches to their constructive critical interpretation.

### No. 3D

#### **TREATING DEPRESSION IN CHILDREN AND ADOLESCENTS: WHAT'S A CLINICIAN TO DO?**

Jeff Q. Bostic, M.D. *Massachusetts General Hospital, School Psychiatry Program, 15 Parkman Street, WACC 725, Boston, MA, 02114-3139*

#### **SUMMARY:**

Depression occurs in children and adolescents, and is associated with significant morbidity, academic and social impairment, and family burden. Childhood depression is also a major risk factor for suicide and long-term psychiatric impairment in adulthood. There is a clear need for safe and effective treatments for depression in children and adolescents. While some evidence exists for the efficacy of SSRI antidepressants in this population, data from other analyses have linked antidepressant treatment to an increased risk of suicidality. This risk, however, must be balanced with the risks associated with untreated depression. To facilitate informed decisions in the treatment of adolescent and childhood depression, the relative risks of treatment versus no treatment must be evaluated, and placed within context of epidemiologic data suggesting a decline in rates of adolescent suicide coincident with the increased prescription of SSRI antidepressants. Pharmacological and psychosocial interventions for depression and suicidality in children and adolescents will be reviewed, along with strategies for managing treatment-emergent risks.

### No. 3E

#### **HOW TO TREAT IN THE ABSENCE OF SCIENTIFIC EVIDENCE: A FOCUS ON ANXIETY DISORDERS IN THE ELDERLY**

Eric J. Lenze, M.D. *University of Pittsburgh School of Medicine, Department of Psychiatry, 3811 O'Hara Street, Rm. E835, Pittsburgh, PA, 15213*

#### **SUMMARY:**

Although evidence-based medicine is the ideal standard for directing patient management and treatment strategies, many common clinical situations are inadequately addressed by clinical research. In part because of various regulatory and market forces, clinical trials may not address a specific patient population or treatment strategy (e.g., long-term treatment; choice of medications; patient characteristics influencing treatment outcome or choice). The treatment of late-life anxiety disorders exemplifies this dilemma. While anxiety disorders are common in the elderly and cause impairments in quality of life and function, there are only a few small clinical trials examining treatment in this population. How then are psychiatrists to decide on a treatment strategy? This symposium will explore the challenges in treating patients when the relevant medical literature is scarce and will provide clinicians with strategic options and the limitations of these options.

#### **REFERENCES:**

1. Kraemer HC, Morgan GA, Leech NL, Gliner, JA, Vaske JJ, Harmon RJ: Measures of clinical significance. *J Am Acad Child Adolesc Psychiatry.* 2003; 42(12):1524-1529.
2. Kraemer HC, Lowe KK, Kupfer DJ: *To Your Health: How to Understand What Research Tells Us About Risk.* New York, Oxford University Press, 2005.
3. Livingston G, Katona C. How useful are cholinesterase inhibitors in the treatment of Alzheimer's disease? A number needed to treat analysis. *International Journal of Geriatric Psychiatry.* 2000;15(3):203-207.
4. Wong IC, Besag FM, Santosh PJ, Murray ML. Use of selective serotonin reuptake inhibitors in children and adolescents. *Drug Saf* 2004;27(13):991-1000.
5. Lenze EJ, Pollock BG, Shear MK, Mulsant BH, Bharucha A, Reynolds CF III. Treatment considerations for anxiety in the elderly. *CNS Spectr.* 2003;8(12) Suppl 3:6-13.

## **INDUSTRY-SUPPORTED SYMPOSIUM 4—BRIDGING SLEEP, SCIENCE, AND PUBLIC POLICY**

**Supported by Takeda Pharmaceuticals North America, Inc.**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participants should be able to recognize the manifestations of sleep deprivation and chronic insomnia, understand the risks associated with special populations, and appreciate the role of public policy and regulatory guidelines in addressing these clinical problems.

### No. 4A

#### **THE SCIENCE OF SLEEP**

David N. Neubauer, M.D. *Johns Hopkins Bayview Medical Center, Department of Psychiatry, 4940 Eastern Avenue, Box 151, Baltimore, MD, 21224*

**SUMMARY:**

The normal regulation of the sleep-wake cycle involves the complex interaction of homeostatic and circadian processes that promote sufficient nighttime sleep and alertness during the daytime and evening. Structures in the brainstem, basal forebrain, and hypothalamus play key roles in the balance of wakefulness and sleepiness. The photoperiod entrains the suprachiasmatic nucleus to stabilize the circadian rhythm, which helps organize the timing of sleepiness and alertness. Insomnia can result from various perturbations to these processes. Recent advances have led to a more sophisticated understanding of the mechanism of action of medications indicated for the treatment of insomnia. There is heterogeneity among GABA-A receptors due to the pentameric structure with varying subunit subtypes. Newer generation hypnotic medications demonstrate selectivity for the alpha-1 subtype. New pharmacological strategies now are being employed to optimize the pharmacokinetic profile of hypnotics to promote a rapid absorption and sustained release during the night. These innovative approaches will help maximize effectiveness during the desired sleep period and minimize residual morning effects.

**No. 4B  
ADOLESCENTS AND SCHOOL START TIMES: THE  
INTERSECTION OF RESEARCH AND PUBLIC  
POLICY**

R. Robert Auger, M.D. *Mayo Clinic College of Medicine, Department of Psychiatry, 200 First Street Southwest, Mayo Sleep Disorders Center-Eisenberg 8G, Rochester, MN, 55905*

**SUMMARY:**

Research has demonstrated adolescents' increased sleep requirement, but most obtain less than 8 hours nightly. This sleep restriction can be partially attributed to the phase delay that occurs during this developmental period, which creates difficulties in retiring at hours compatible with early school start times. Current findings indicate that sleep impairment is negatively associated with various parameters of academic performance. A seminal study by Wahlstrom and colleagues compared a large number of students both before and after the Minneapolis, Minnesota, Public School District's start time change to a later hour, for a period of 4 years. The students affiliated with later start times obtained approximately one hour more sleep nightly than their counterparts, and demonstrated an increased percentage of those who were continuously enrolled in the same school or district, in addition to an improvement in attendance rates for grades 9 through 11. Students with later start times also reported less depressive symptoms than the early start students. This talk will review the sleep needs and patterns of adolescents, discuss how the collaboration of the medical and educational research communities can ultimately affect change at the national level, and describe the ongoing barriers to implementation of late start times.

**No. 4C  
SHIFTWORK, SLEEP, AND PERFORMANCE**

Gregory Belenky, M.D. *Washington State University - Spokane, Sleep and Performance Research Center, 310 N. Riverpoint Blvd., PO Box 1495, Spokane, WA, 99210-1495*

**SUMMARY:**

Extended work hours and evening and night shift work are common in our 24x7 society. Increasing competitive pressures in all forms commerce and industry ensure that this will continue to be the case for the foreseeable future. Acute total sleep deprivation and chronic sleep restriction impair cognitive performance. On average, total sleep deprivation reduces performance by 25% for each successive 24 hours awake. Brain regions underlying complex, higher order

performance (planning, anticipation, the integration of reason and emotion) are more affected than those underlying simple performance. Even mild chronic sleep restriction (total sleep time between 6 and 6.5 hours) degrades performance over days. The circadian rhythm in body temperature is associated with impairment of performance when core body temperature is falling and impaired ability to sleep when core body temperature is rising. Extended work hours reduce the time available for sleep. Night shift work necessitates sleeping while body temperature is rising truncating total sleep time. Individuals vary greatly in their tolerance for sleep deprivation and sleep restriction. Strategies of fatigue risk management as opposed to prescriptive hours of service regulation are gaining currency as the better way to manage sleep to sustain performance.

**No. 4D  
MEDICAL EDUCATION AND RESIDENT DUTY  
HOURS**

Phyllis C. Zee, M.D. *Northwestern University, Department of Neurology, 710 N. Lake Shore Drive, 1126, Chicago, IL, 60611*

**SUMMARY:**

Residency training traditionally involved work schedules that required extended duty hours and inadequate opportunities for sleep. The consequences have included impaired cognition and performance, fatigue, inefficient learning, mistakes and accidents, increased medical errors endangering patient care, and impaired resident health. Resident work schedules have been implicated in increasing the risk of motor vehicle accidents, depressive symptoms, and pregnancy complications. Abundant scientific evidence has documented the performance decrements resulting from acute and chronic sleep deprivation characteristic of some residency rotations. Policy changes occurred in 2003 when Accreditation Council on Graduate Medical Education regulations became effective. These limited the maximum average hours of work per week to 80 hours, restricted work shifts to 24 hours, and required minimum breaks and time off from work. In 2004 the Liaison Committee on Medical Education issued guidelines regarding medical student clerkship schedules. However, debate regarding the impact of resident duty time persists as new reports offer continued evidence of increased risk of impairment.

**No. 4E  
INSOMNIA AND PUBLIC POLICY**

Daniel J. Buysse, M.D. *University of Pittsburgh School of Medicine, Department of Psychiatry, 3811 O'Hara Street, Room E-1127, Pittsburgh, PA, 15213-2593*

**SUMMARY:**

*Objective:* This presentation will review published and new data regarding the definition, epidemiology, and consequences of insomnia; common treatment approaches; and how governmental and academic partnerships have influenced clinical practice in this important area.

*Methods:* Literature review and summary of original research.

*Results:* Insomnia is a prevalent and costly health problem in the general population, and among patients with psychiatric illness in particular. The *symptom of insomnia* is defined as a complaint of difficulty falling asleep, difficulty staying asleep, or poor quality sleep occurring in an individual who has adequate opportunity and circumstances for sleep. *Insomnia disorders* include the insomnia complaint as well as evidence for significant distress or impairment, specific diagnostic features, and a minimum duration. The prevalence of insomnia complaints in the general population is in the range of 30-40%, while the prevalence of more narrowly-defined insomnia disorders is about 10%. Insomnia is associated with consequences

for the individual, including impaired daytime function and quality of life. It is also associated with consequences that affect the larger society, including increased health care costs, increased rate of accidents, and increased risk for the development of new onset psychiatric disorders, especially mood disorders.

Insomnia management has long been dominated by three concepts: First, that insomnia can be divided into acute, short-term, and chronic subtypes; second, that chronic insomnia should be viewed only as a symptom of other underlying conditions; and third, that pharmacologic treatment should be used only short-term. These views were propounded by an influential 1983 NIH Consensus Development Conference. However, emerging evidence suggests that insomnia is most often a chronic and recurring condition; that it often follows a course distinct from associated conditions, and may benefit from independent treatment; and that in some cases, long-term pharmacologic management is warranted.

Efficacious treatments for insomnia include behavioral-psychological treatments and pharmacologic treatments. Although behavioral treatments are typically delivered individually or in small groups of patients, some studies suggest the utility of public health approaches to treatment delivery. Only one class of drugs, the benzodiazepine receptor agonists (BzRA), is approved for the treatment of insomnia. Substantial evidence supports their efficacy and safety. However, several interlocking factors have combined to make off-label drugs such as trazodone among the most widely prescribed for insomnia. These factors include FDA labeling of most BzRA for short-term treatment of insomnia; clinician fears regarding abuse potential and DEA scheduling of BzRA; and reluctance by the NIH to fund comparative drug treatment trials. The NIH will convene a State of the Science Conference, "Manifestations and Morbidity of Chronic Insomnia in Adults," in June, 2005. This conference will re-examine insomnia treatment issues, and may well affect the clinical practice of both behavioral and pharmacological insomnia treatment. Psychiatrists need to be aware of the new recommendations emerging from this conference.

*Conclusion:* Insomnia is common and consequential, and efficacious treatments exist. Governmental, academic, and clinical stakeholders have shaped the current practice of insomnia treatment. Ideally, such practice is guided by empirical evidence rather than assumptions and defensive medicine practices.

#### REFERENCES:

1. Neubauer DN: Pharmacologic approaches for the treatment of chronic insomnia. *Clinical Cornerstone* 2003; 5:16-27.
2. Wolfson AR, Carskadon MA: Understanding adolescents' sleep patterns and school performance: a critical appraisal. *Sleep Med Rev* 2003; 7:491-506.
3. Belenky G, et al: Patterns of performance degradation and restoration during sleep restriction and subsequent recovery: a sleep dose-response study. *J Sleep Res* 2003; 12:1-13.
4. Steinbrook R: The debate over residents' work hours. *N Engl J Med* 2002; 347:1296-1302.
5. Buysse DJ, Germain A, Moul D, Nofzinger EA: Insomnia. In *Sleep Disorders and Psychiatry* (Review of Psychiatry Volume 24), edited by Buysse DJ (JM Oldham, MB Riba, series editors), Arlington, American Psychiatric Publishing, Inc, 2005, pp 29-75.

**SATURDAY, MAY 20, 2006**

## INDUSTRY-SUPPORTED SYMPOSIUM 5— MANIA IN SPECIAL POPULATIONS Supported by Shire US, Inc.

#### EDUCATIONAL OBJECTIVES:

The objectives of this symposium are to provide an update on how new data can help the clinician to manage the patient with

mania; to understand the clinical presentation of bipolar disorder in children and adolescents, as well as to address special treatment issues in this population; to learn about special issues regarding mania in women, such as management during pregnancy and breast feeding, and management of adverse event issues, such as metabolic and hormonal abnormalities; to appreciate special concerns in older adults, including differential diagnosis with neurological disorders, and to address special treatment considerations; and to improve knowledge about bipolar disorder in African Americans, including misdiagnosis as schizophrenia, and appreciate differing patterns of care in this population.

### No. 5A RECENT DEVELOPMENTS IN THE TREATMENT OF MANIA

Robert M. Hirschfeld, M.D. *University of Texas Medical Branch, Department of Psychiatry and Behavioral Sciences, 301 University Boulevard, Galveston, TX, 77555-0188*

#### SUMMARY:

This presentation will summarize data from controlled monotherapy and combined therapy trials in the acute treatment of mania. Included will be data for extended formulations of carbamazepine and divalproex as well as from the atypical antipsychotics olanzapine, quetiapine, risperidone, ziprasidone and aripiprazole. The controversy about whether initial treatment should be monotherapy or combination therapy will be discussed. This presentation should provide a context for the subsequent presentations that focus on issues in diagnosis and treatment of mania in special populations.

### No. 5B RECOGNITION AND MANAGEMENT OF CHILD AND ADOLESCENT BIPOLAR DISORDER

Karen D. Wagner, M.D. *University of Texas Medical Branch, Division of Child and Adolescent Psychiatry, 301 University Boulevard, Route D25, Galveston, TX, 77555-0188*

#### SUMMARY:

Bipolar disorder in children and adolescents is a serious illness that significantly disrupts a child's functioning in school, at home, and with peers. Early identification and treatment of this disorder may improve the quality of children's lives. In this symposium, symptoms characteristic of bipolar disorder in young children and adolescents will be presented. The course of bipolar disorder will be discussed and comorbid conditions that complicate this illness will be reviewed. Data regarding the efficacy and safety of medications for the treatment of bipolar disorder in youth will be discussed. A medication algorithm to guide clinicians' treatment decisions will be presented. The role of psychoeducation as an adjunctive treatment modality will be reviewed.

### No. 5C BIPOLAR DISORDERS IN WOMEN: CLINICAL AND METABOLIC CORRELATES

Natalie L. Rasgon, M.D. *Stanford University School of Medicine, Psychiatry and Behavioral Sciences, 401 Quarry Road, Room 2368, Stanford, CA, 94305-5723*

#### SUMMARY:

There are gaps in research surrounding issues specific to women who suffer from bipolar disorder, including gender differences and their implications for management, the impact of the reproductive cycle, and evidence based treatment guidelines for pregnancy and

the postpartum period. Gender differences have not been reported for the prevalence of bipolar disorder; however, women are more likely to experience rapid cycling, mixed mania, and antidepressant-induced manias. This may affect response to treatment, which has been found, in some cases, to differ in men and women. In addition, side effects in response to treatment may well differ in men and women, especially with regard to lithium and valproate prescription. The course of bipolar disorder in women may be influenced by the menstrual cycle, pregnancy, the postpartum period, and menopause, although many issues require further clarification. Treatment of bipolar disorder during pregnancy and the postmenopausal period requires careful consideration, as does treatment during the childbearing years, as some mood stabilizers influence the metabolism of oral contraceptives. Clinical data and treatment strategies for women with bipolar disorder will be reviewed.

#### No. 5D BIPOLAR DISORDERS IN THE OLDER PATIENT

Brent P. Forester, M.D. *McLean Hospital, Geriatric Psychiatry, 115 Mill Street, Belmont, MA, 02478*

##### SUMMARY:

Prevalence estimates for bipolar disorder in persons over age 65 have ranged from 0.1 to 0.4% of the US population, and 5% to 12% of all geriatric psychiatry inpatient admissions are for bipolar disorder. Most bipolar disorder patients follow a life-long recurrent course, with ongoing psychosocial and functional deficits that persist into later life. Although bipolar disorder usually presents in adolescence or young adulthood, a small number of individuals experience the first onset of mania over the age of 50, typically but not always, in association with medical or neurological factors such as dementia or other central nervous system disorders. Bipolar depression, both in adulthood and later life, often represents the predominant and least successfully treated phase of this devastating illness.

Despite an ongoing psychiatric, functional and economic burden of bipolar disorder into later life, there is a significant lack of prospective clinical research studies for the treatment of the 3 phases of bipolar disorder (mania, depression and maintenance) in the older population. Many of our treatment decisions for older adults with bipolar disorder are empirical clinical decisions and based on extrapolations from clinical trial data in a younger population.

This presentation will discuss specific diagnostic and management challenges in geriatric bipolar disorder including the concept of secondary mania and issues of cognitive co-morbidity. In addition, suggestions will be discussed for an evidenced-based and clinically practical pharmacological and non-pharmacological treatment approach.

#### No. 5E RECOGNIZING BIPOLAR DISORDER IN AFRICAN AMERICANS

William B. Lawson, M.D. *Howard University Hospital, Department of Psychiatry, 2041 Georgia Ave. NW, Howard Univ Hosp /Dept of Psychiatry, 5th Floor, Washington, DC, 20060*

##### SUMMARY:

Bipolar affective disorder is often underrecognized and misdiagnosed. African Americans in particular are at risk for missed diagnosis and inappropriate treatment. Research over the past 2 decades has shown that African Americans are misdiagnosed as having schizophrenia. More recent research has shown that underrecognition is common. Provider variables contribute, including persistence of beliefs that the disorder is rare in ethnic minorities. Moreover, mood symptoms are often disregarded. Patient variables are also important,

including treatment delay or refusal. African Americans often get treatment in non-mental health settings. Primary care clinics are often preferred to mental health providers by African Americans. Recent studies show that bipolar disorder is common in primary care settings. African Americans are also at greater risk of being homeless or incarcerated, settings where diagnosis and treatment are often substandard. Treatment consequences include treatment delay, greater use of first-generation antipsychotics and underuse of mood stabilizers, especially lithium. Strategies for better recognition will be discussed.

##### REFERENCES:

1. Hirschfeld RMA: The Efficacy of Atypical Antipsychotics in Bipolar Disorder. *Journal of Clinical Psychiatry* 2003; 64(Suppl 8):15-21.
2. Geller B, Tillman R, Craney JL, Bolhofner K: Four-year prospective outcome and natural history of mania in children with prepubertal and early adolescent bipolar disorder phenotype. *Arch Gen Psychiatry* 2004; 61:459-467.
3. Burt V, & Rasgon N. Special considerations in treating bipolar disorder in women. *Bipolar Disorders*. 2004 Feb;6(1):2-13.
4. Young RC, Gyulai L, Mulsant BH, Flint A, Beyer JL, Shulman KI, Reynolds CF, 3rd: Pharmacotherapy of bipolar disorder in old age: review and recommendations. *Am J Geriatr Psychiatry* 2004; 12(4):342-57.
5. Lawson WB: Guest editor: The spectrum of bipolar disorder. *Psychiatric Ann* 2004; 34: 6.

#### INDUSTRY-SUPPORTED SYMPOSIUM 6— VERGING ON REALITY: EMERGENT THERAPEUTIC ADVANCES IN SCHIZOPHRENIA Supported by Bristol-Myers Squibb Company and Otsuka America Pharmaceutical, Inc.

##### EDUCATIONAL OBJECTIVES:

Appreciate the role of genetic effects on brain physiology and treatment response in schizophrenia;

Understand neuroimaging insights on drug effects and implications for drug development;

Appreciate the impact of subjective tolerability to medications as a patient-centered treatment outcome;

Appreciate the emergent role of recovery approaches, including peer support, in service delivery.

#### No. 6A FUNCTIONAL GENOMICS AND THE THERAPEUTIC EFFECTS OF ANTIPSYCHOTICS

Anil K. Malhotra, M.D. *Zucker Hillside Hospital, Department of Psychiatry, 75-59 263rd St., The Zucker Hillside Hospital, Glen Oaks, NY, 11004*

##### SUMMARY:

Gene mapping and candidate gene association studies are now beginning to identify the first convincing susceptibility genes for schizophrenia including dysbindin (DNTBP1, 6p22, {Straub et al. 2002}), neuregulin 1 (NRG1, 8p12, {Stefansson et al. 2002}), G72 (13q33, {Chumakov et al. 2002}) regulator of G-protein signaling 4 (RGS4, 1q23; {Chowdari et al. 2002}) and catechol-O-methyltransferase (COMT 22q11-13, {Egan et al. 2001}). Despite the success of these initial gene-finding efforts, the implications of these results

are less clear. The mechanisms by which these genes predispose to illness development is not known, the specific phenotypes associated with risk genotypes remain to be determined, and the relationship of disease genes to treatment response are ongoing lines of investigation.

In this presentation, we will discuss recent data that begin to shed light on the clinical implications of these gene identification efforts. First, we will review new data suggesting that most, but not all, schizophrenia susceptibility genes have modest, yet significant, effects on neurocognitive and neuroimaging parameters commonly impaired in schizophrenia, and data suggesting that gene-targeted treatments may ameliorate some of these deficits in subgroups of patients. Second, we will examine the issue of whether specific risk genotypes can influence the symptomatic presentation of illness, including results indicating that the schizophrenia susceptibility gene, *dysbindin*, is associated with cognitive impairment and negative symptomatology in schizophrenia. Finally, we will review emerging pharmacogenetic data suggesting that specific genotypic groups may be predisposed towards better treatment response, or be at greater risk for drug induced side effects. In particular, we will focus on data from our group suggesting that first episode schizophrenia patients clinical response to treatment with the second generation antipsychotics may be influenced by genotype at the dopamine D2 receptor, as well as replicated data demonstrating an effect of the serotonin 2C receptor gene on antipsychotic-induced weight gain.

At the end of this presentation, we hope that audience members will have gained an appreciation for the rapid pace of gene discovery in psychiatric illnesses, had the opportunity to review data suggesting that susceptibility genes may have an impact on critical features of illness such as clinical symptomatology, neurocognitive function, and treatment response, and begin to consider the implications of these results towards the goal of a clinically meaningful molecular classification of illness.

#### No. 6B BRAIN IMAGING TECHNIQUES AS CLINICAL TOOLS

Carol A. Tamminga, M.D. *UT Southwestern Medical School, Psychiatry, 5323 Harry Hines Boulevard, Dallas, TX, 75390-9070*

#### SUMMARY:

The development of ever-increasingly sophisticated and now multimodality brain imaging technologies provides new opportunities for understanding the impact of antipsychotic medications upon brain structure and function. Additionally, neuroimaging is now providing direction in exploring new mechanisms of action of antipsychotics and thereupon facilitating the development of more effective treatments for schizophrenia. Provocative findings suggest sparing of cortical tissue loss and differential effects on subcortical structures during treatment. Functional studies have advanced successive elaborations of the dopamine hypothesis with respect to both efficacy and tolerability of antipsychotic medications, including the most recent introduction of partial agonism that is characterized by near-saturation of dopamine D2 receptors in Positron Emission Tomography (PET) studies. A new generation of PET and now also fMRI investigations can characterize the effects of second generation

on antipsychotic medications on cerebral blood flow and functional capacity. This presentation will illuminate how neuroimaging is now facilitating more rapid translation of basic and clinical research findings into clinical psychopharmacology.

#### No. 6C IN SEARCH OF WELLNESS: SUBJECTIVE TOLERABILITY OF SECOND GENERATION ANTIPSYCHOTICS

Meera Narasimhan, M.D. *USC School of Medicine, Dept. of Neuropsychiatry & Behavioral Science, 3555 Harden Street Extension, Columbia, SC, 29203*

#### SUMMARY:

Quality of life and tolerability of antipsychotic medications has now taken center stage in predicting clinical outcomes beyond amelioration of symptoms in persons' with schizophrenia. In the previous era; first generation antipsychotics (FGA's) were clearly efficacious in treating positive symptoms but lacked efficacy on other domains to meaningfully improve quality of life. Moreover side-effects burden of tardive dyskinesia, akathisia and neuroleptic-induced dysphoria were poorly tolerated and further burdened the attainment of satisfaction and quality of life. Second generation antipsychotics (SGA's) with established efficacy in treating core symptoms of depression and cognition offer the potential to enhance quality of life due to a lower risk of side-effects: neurologic, sexual and less prolactin elevation (for some drugs). However it is now evident that this quality of life/subjective tolerability advantage of SGA's at least in part is mitigated by weight gain and metabolic effects. Indeed metabolic adverse events have serious implications on morbidity, mortality and quality of life.

Subjective tolerability of medications is therefore now recast as a key consideration in antipsychotic selection. A challenge for our field and in some ways an opportunity with SGA treatment is to reach beyond their complex profiles to promote wellness. Both physician and patient should play an active role in making collaborative treatment decisions with the primary goal of wellness. Evidence-based customized treatments taking into account comorbidities, drug preference, prior response to treatment, side-effect profile, cost and ease of use is a step in that direction.

#### No. 6D RECOVERY AND REMISSION: DEFINITIONS, DILEMMAS, AND THE EMERGENT ROLE OF PEER SUPPORT SPECIALISTS

Peter F. Buckley, M.D. *Medical College of Georgia, Department of Psychiatry, 1515 Pope Avenue, Augusta, GA, 30912-3800*

#### SUMMARY:

With broader and enhanced domains of outcome with second generation antipsychotic (SGA) therapy for persons with schizophrenia, there has been recent renewed interest in the notions of remission and recovery from schizophrenia-terms that are more cogently articulated and measured in depression than in studies on schizophrenia. Data are now emerging on the potential of SGAs to facilitate remission and recovery in persons with schizophrenia. However, recovery means different things to different people and requires more of our treatments than symptom reduction alone to encompass a broader view of outcome. While the President's New Freedom Commission for Mental Health puts Recovery as center stage, this authoritative policy document describes our current mental health care system as "a patchwork relic...the result of disjointed reforms and policies...-fragmented and in disarray".

Consistent with the New Freedom Commission's fundamental vision of recovery and services that are consumer and family centered and that are therefore oriented around the consumer's needs, this presentation will describe the emergent role of self-directed recovery. The greatest potential for recovery is not within the system, but within the individual and, accordingly, this presentation will also evaluate the impact to date of Peer Support Specialist initiatives in

seeking to now transform services to foster recovery. We will also describe our own joint efforts to articulate and to develop core competencies in recovery among mental health professionals in training.

#### REFERENCES:

1. Malhotra AK, Murphy GM, Kennedy JL: Pharmacogenetics of psychotropic drug response. *Am J Psychiatry* 2004; 161:780-796.
2. Lieberman JA et al. Antipsychotic drug effects on brain morphology in first-episode psychosis. *Arch Gen Psycy* 2005; Apr; 62(4):361-370.
3. 1. Awad AG, Voruganti LN. Impact of atypical antipsychotics on quality of life in patients with schizophrenia. *CNS Drugs*. 2004;18 (13):877-93.
4. Andreasen NC, Carpenter WT, Kane JM, Lasser RA, Marder SR, Weinberger DR. Remission in schizophrenia: proposed criteria and rationale for consensus. *American Journal of psychiatry* 2005; 162: 441-44.

### INDUSTRY-SUPPORTED SYMPOSIUM 7— BIPOLAR DISORDER: CREATING A CONSENSUS FROM SCIENCE TO PUBLIC POLICY

Supported by Solvay Pharmaceuticals and  
Wyeth Pharmaceuticals

#### EDUCATIONAL OBJECTIVES:

By the end of this symposium the audience will have a comprehensive review of the current status of scientific data regarding:

- 1) The onset and course of bipolar disorder in children and adolescents
- 2) The severity of dysfunction associated with bipolar disorder and its individual and societal impact on the legal system
- 3) The relative benefits and limitations of our current knowledge about longer term pharmacotherapy and psychotherapy for bipolar disorder
- 4) The strengths and limitations of existing data about alternative traditional and nontraditional pharmacotherapies for bipolar disorder. These data will be presented in such a way that the audience will not only understand the implications of these data for the individual practitioner, but the larger potential societal ramifications of these findings

#### No. 7A THE IMPACT OF PSYCHOSOCIAL TREATMENT ON THE COURSE AND PROGNOSIS OF BIPOLAR DISORDER

Ellen Frank, Ph.D. *University of Pittsburgh School of Medicine, Western Psychiatric Institute and Clinic, 3811 O'Hara Street, Pittsburgh, PA, 15213*

#### SUMMARY:

Bipolar disorder has long been recognized as a life-long condition and one that will require life-long treatment in most of those who suffer from it. When effective pharmacologic treatments were discovered in the latter half of the last century, most clinicians considered bipolar disorder a problem solved. As we begin the 21st Century, we are well aware that, in fact, it remains a tremendous therapeutic challenge. Many patients suffer for years before receiving accurate diagnosis and appropriate intervention. The majority of those who do find their way into treatment are acutely ill again within two to three years.

While new drug development offers the promise of more effective medications with more favorable side-effect profiles, this will help only those who adhere to treatment over extended time periods. Recent studies examining the efficacy of a variety of psychoeducational and psychotherapeutic interventions developed specifically for bipolar disorder generally lead to the same conclusion: adding a psychosocial treatment to appropriate pharmacotherapy improves both short and long-term outcomes. Furthermore, the mechanisms by which this occurs are beginning to be elucidated.

This presentation will focus on common themes in these psychosocial interventions and will present outcomes from a number of recently-completed trials showing significant decreases in rates of hospitalization, increases in the length of the well-interval and reductions in inter-episode mood symptomatology. In addition, data on moderators and mediators of treatment outcomes in these studies will be discussed. Finally, using data from a maintenance treatment study conducted at the University of Pittsburgh, we will make a case for the importance of a comprehensive and coordinated maintenance treatment approach in improving long-term outcomes for individuals with bipolar disorder.

#### No. 7B A RATIONAL APPROACH FOR THE LONGITUDINAL PHARMACOLOGIC MANAGEMENT OF PATIENTS WITH BIPOLAR DISORDER: AN ARGUMENT FOR CHANGING PUBLIC POLICY

Mark H. Rapaport, M.D. *Cedars - Sinai Medical Center, Department of Psychiatry, 8730 Alden Drive, Suite C-301, Los Angeles, CA, 90048*

#### SUMMARY:

Bipolar disorder can wreak havoc on both the patient and the lives of loved ones. It is clear that it is a far more complex and potentially devastating illness than has been appreciated by either the psychiatric community or society in general. Although there is an emerging consensus that combined pharmacotherapy and psychotherapy which can flexibly adjust in intensity is probably the optimal treatment for this complex syndrome, there exists very little empirical evidence to support this belief. In this presentation we will focus on the reviewing the strengths and weaknesses of existing longer term pharmacological treatment data for bipolar disorder. We will review both industry-sponsored trials conducted with anticonvulsants and atypical antipsychotic medications as well as data from naturalistic studies of the course and treatment outcomes of patients with bipolar disorder. One of the major points of discussion in this presentation will be the merits and liabilities of the common clinical practice of "rational" polypharmacy. We will explore the conundrum of how does one develop a reasonable approach to care for potentially labile and fragile patients when there is a paucity of data to inform ones clinical decisions. By the end of this presentation the audience will understand the strengths and weaknesses of our current longitudinal treatment research and will appreciate why this should lead to a rethinking of our current public policy regarding visit frequency, multidisciplinary care, and reimbursement.

#### No. 7C ALTERNATIVE PHARMACOLOGIC APPROACHES TO THE CARE OF BIPOLAR PATIENTS

Alexander H. Fan, M.D. *Cedars-Sinai Medical Center, Department of Psychiatry, 8730 Alden Drive, W101, Los Angeles, CA, 90048*

#### SUMMARY:

Lithium, anticonvulsants and atypical antipsychotic agents are the most commonly used classes of medications to treat bipolar disorder.

Although these medications have proven acute and longer term efficacy, they may have significant side effects, narrow therapeutic indices, teratogenicity, high costs and requirements for monitoring serum levels. Preliminary studies suggest that alternative approaches may be efficacious in the treatment of bipolar disorder. Novel agents investigated include omega-3 fatty acid, dopamine agonists (pramipexole, stimulants), calcium channel blockers, levothyroxine, pindolol, cholinesterase inhibitors, and magnesium. Alternative treatments are being increasingly used by psychiatrists for patients who cannot tolerate side effects or do not respond to standard therapies for bipolar disorder. Therefore, clinicians need to have an understanding of the theoretical rationale for using these agents as well as limitations of existing data supporting these alternative pharmacotherapies. We will use our study of the mood stabilizing properties of magnesium as an example of an approach for evaluating the efficacy and safety of an alternative treatment. By the end of the lecture the audience will receive a review of the existing studies of alternative agents being studied for the treatment of bipolar disorder. This unique area of investigation may have a significant impact on future public policy decisions.

#### No. 7D TREATMENT CONSIDERATIONS FOR MANIA IN YOUNG CHILDREN

Barbara Geller, M.D. *Washington University in St. Louis, Department of Psychiatry, 660 South Euclid Avenue, Washington University in St. Louis, Dept Psychiatr, Saint Louis, MO, 63110*

#### SUMMARY:

Over the past decade, converging lines of data-based evidence (phenomenological, prospective natural course, familial aggregation, neurobiological) support the existence of mania in children as young as age 6. A brief review of these data for the validation of pediatric aged mania will be provided. Research has shown that, counter-intuitively, these very young children compared to their adult counterparts had more severe psychopathology (longer episode duration and high prevalences of mixed mania, psychosis, ultradian cycling), a poorer prognosis (e.g., had a BP diagnosis 67% of weeks during four year follow-up), and higher familial aggregation (one-third of first degree relatives had a BP diagnosis). Data on natural history treatments (subjects cared for entirely by their own community practitioners) demonstrated two important findings for public health policies. One finding was that less than 50% of manic children were on any anti-manic drug (lithium, anti-convulsant, antipsychotic) from their community physicians. Secondly, in the natural history paradigm, no anti-manic drug was significantly related to better outcome. Antipsychotics and non-drug therapies were related to worse outcome, but this may be because they were only administered to sicker children. Therefore, data showed that child mania is neither a brief, self-limiting illness nor easily responsive to current anti-manic treatments; factors which may be associated with complex management plans. Age-specific, developmental approaches to treatment will be discussed. Of importance is the pediatric adage that "children are not miniature adults" and thus developmental effects of drugs must be considered (e.g., ketamine is a widely used anesthetic in 8-year-olds but is psychotomimetic in adults). Areas that will be presented include child versus adult differences in pharmacokinetics, pharmacodynamics, metabolic and endocrine factors, what drug to start with, when to add or switch drugs, what to do about stimulants, and maintenance strategies. Potential public policy implications of these childhood-specific issues will be discussed.

#### No. 7E TREATMENT OF BIPOLAR DISORDER IN US JAILS AND PRISONS

Joseph R. Calabrese, M.D. *University Hospital Cleveland, Department of Psychiatry, 11400 Euclid Avenue, Suite #200, Cleveland, OH, 44106*

#### SUMMARY:

The available evidence suggests that the management of serious mental illness in US jails and prisons represents a tremendous unmet medical need, and a significant financial burden on the society at large. The deinstitutionalization movement, starting in the 1980s, has displaced patients with serious mental illness from the health care system to the criminal justice system. Patients with undiagnosed, untreated serious mental illness are being housed in jails and prisons without adequate provision of care. Preliminary data from the Ottawa County Jail Screening Project suggests that charges, convictions, and time spent incarcerated for seriously mentally ill inmates are almost fourfold that of inmates without a serious mental illness. The aim of this presentation is to 1) increase the awareness of the implications of shifting the burden of care for the mentally ill to the criminal justice system, 2) present and discuss preliminary data from the Ottawa County Jail Project, 3) present and discuss practical suggestions for treatment of inmates with serious mental illnesses, and to initiate discussion about potential public policy solutions.

#### REFERENCES:

1. Swartz, H.A., Frank, E. and Kupfer, D.J. Psychotherapy of bipolar disorder. In: American Psychiatric Publishing Textbook of Mood Disorders. D.J. Stein and A.F. Schatzberg (Eds.). American Psychiatric Press Publishing (in press).
2. American Psychiatric Association: Practice Guideline for the Treatment of Patients with Bipolar Disorder (Revision). *Am J Psychiatry* 2002;159 (april suppl).
3. Altshuler LL, Frye MA, Gitlin MJ: Acceleration and augmentation strategies for treating bipolar depression. *Biol Psychiatry* 2003; 53: 691-700.
4. Geller B, Tillman R, Craney JL, Bolhofner K: Four-year prospective outcome and natural history of mania in children with a prepubertal and early adolescent bipolar disorder phenotype. *Arch Gen Psychiatry* 2004; 61:459-467.
5. Journal Article - 1. Metzner JL: Class Action Litigation in Correctional Psychiatry. *J. Amer. Acad. Psychiatry and the Law*, 30: 19-29, 2002.
6. Metzner JL: Class Action Litigation in Correctional Psychiatry. *J. Amer. Acad. Psychiatry and the Law*, 30: 19-29, 2002.
7. Manderscheid RW, Ph.D., Aliya Gravesande A, Goldstrom ID: Growth of Mental Health Services in State Adult Correctional Facilities, 1988 to 2000. *Psychiatr Serv* 55:869-872, August 2004.

#### INDUSTRY-SUPPORTED SYMPOSIUM 8— TREATMENT-RESISTANT DEPRESSION: NEW DATA, NEW APPROACHES Supported by Cyberonics, Inc.

#### EDUCATIONAL OBJECTIVES:

improve their therapeutic approach to patients with treatment resistant depression.

#### No. 8A DEFINITIONS AND CLINICAL CHARACTERISTICS OF TREATMENT-RESISTANT DEPRESSION

David L. Dunner, M.D. *University of Washington, Department of Psychiatry, Ctr Anx & Dep, 4225 Roosevelt Way NE, 306C, Seattle, WA, 98105-6099*

**SUMMARY:**

There are two purposes of this presentation: first, to define treatment resistance and second, to describe the clinical features of treatment resistant depressives, both bipolar and unipolar.

Treatment resistance is defined by failure to respond to or remit to treatment applied for an adequate duration at an adequate dose. Patients may be further defined by the number of adequate treatment trials they have failed to respond/remit to.

Research studies of treatment resistant depressives point to several common features: they frequently have chronic (2 years or greater) current depressive episodes and they are more likely to have made suicide attempts when compared to non-treatment resistant patients. Chronic depression and rapid cycling characterize the bipolar treatment resistant depressive.

Data from a 2 year prospective study of over 100 treatment resistant patients (mostly unipolar) will be presented. These data show that, in spite of aggressive treatment, the response, sustained response, and remission rates are low, psychosocial impairment is high, and health care utilization is high.

**No. 8B****TREATMENT RESISTANCE AND GENES: THE BIOLOGY VERSUS PHARMACOLOGY ENIGMA**

Francisco A. Moreno, M.D. *University of Arizona, College of Medicine, Department of Psychiatry, 1501 N. Campbell Avenue, 7-OPC, Tucson, AZ, 85724*

**SUMMARY:**

Treatment Resistant Depression is a disabling condition, commonly encountered in psychiatric practice. Neurobiologically, it remains unclear whether it represents a distinctive entity pathophysiologically unrelated to Classic Unipolar Major Depression; the same condition but possessing pharmacokinetic/pharmacodynamic alterations that selectively affect treatment outcome; or it is actually a heterogeneous syndrome representing symptom expression from a number of unrelated conditions. The field of genetics represents one of the most promising approaches to understanding the mechanisms underlying disease and behavior, as well as treatment outcome. Evidence that implicates genetic factors in the etiology of depression-related phenotypes will be presented, including: family, twin, and adoption studies, as well as relevant molecular biology findings. Data on association studies of subjects with treatment resistant depression, in comparison to depressive subjects capable of sustaining remission, and healthy volunteers will be presented. Similarly, genetic data on prediction of antidepressant response will be discussed.

**No. 8C****PET OF CHRONIC VAGAL NERVE STIMULATION FOR SEVERE, TREATMENT-RESISTANT DEPRESSION**

Jose V. Pardo, M.D. *Veterans Affairs Medical Center & Dept. Psychiatry, U Minnesota, Psychiatry Service 116A, One Veterans Drive, Cognitive Neuroimaging Unit, Minneapolis, MN, 55417-2300*, Sohail A. Sheikh, M.D., Matthew Hagen, M.D., Dennis A. Philander, M.D., David E. Adson, M.D., Barry Rittberg, M.D., Farouk S. Abuzzahab, Sr., M.D., Joel T. Lee, M.S.

**SUMMARY:**

Treatment-resistant depression (TRD) carries high morbidity, mortality, and cost. Vagal Nerve Stimulation (VNS) is a treatment for TRD currently under investigation. Precisely how VNS may ameliorate depression remains unknown. This study uses PET measures of FDG uptake to identify the metabolic changes occurring in TRD patients with chronic VNS. Eight TRD patients had a mean HDRS25

score of 31; mean duration of illness 20 years; an average of six failed antidepressant trials; and mean duration of 2.2 years for the current episode. Patients were scanned in the resting state (eyes closed) at 7-10 days after implantation (before switching the VNS device ON) and at 12 months of chronic VNS. The device was turned OFF for two hours before scanning to preclude the effect of direct stimulation. Eight healthy, age-matched volunteers were scanned similarly as a comparison group. The images were realigned; corrected to a mean whole-brain activity; and stereotactically normalized. Statistics employed a general linear model with random effects. Contrasts were explored with t-tests between groups (patients vs. controls) and within group (post vs. pre VNS). Five of eight patients showed greater than 40% reduction in HDRS25. As a group, the TRD patients compared to the controls showed hypometabolism in the subgenual cingulate and medial ventral prefrontal cortex (VPFC). With VNS, the hypometabolism in the TRD group became more severe in these areas and extended to the frontal pole. There was also deactivation of the ventral tegmental area (VTA) and hypothalamus. These data are consistent with a model wherein chronic VNS deactivates or "takes off-line" in a bottom-up manner pathological limbic circuitry in VPFC, perhaps through dopaminergic modulation. These results will be discussed in the context of other imaging studies of TRD.

**No. 8D****AUGMENTATION STRATEGIES FOR PATIENTS WITH DIFFICULT-TO-TREAT MDD**

Alicia R. Ruelaz, M.D. *8700 Beverly Blvd, 8th floor, Room 86, West Hollywood, CA, 90048-1804*

**SUMMARY:**

Difficult to treat depression is a common, debilitating and is associated with significantly increased morbidity and mortality. Although clinicians commonly employ a variety of approaches, there is a paucity of data supporting most commonly used strategies. There is even less known about the value of continuing augmentation therapies after resolution of the acute episode. This presentation will review the existing data supporting the use of traditional augmentation strategies for difficult to treat depression. We will critically evaluate the relative strengths and weaknesses of these data in order to facilitate clinicians employing an evidence-based approach to acute treatment. We will also present in detail the results of a 500 person placebo-discontinuation study designed to determine the value of continuation augmentation treatment with atypical antipsychotic medications. These data suggest that we need to thoughtfully reconsider how we conceptualize difficult to treat depression. We will present analyses demonstrating that response to continuation treatment is quite heterogeneous. This suggests that many individuals may require a brief intervention with an augmenting agent but do not necessarily benefit from or require being burdened by long-term treatment with second medication. By the end of this presentation the audience will understand the strengths and weaknesses of the exiting acute treatment data investigating the efficacy of augmentation treatment for difficult to treat major depressive disorder. We will also present data from the only large continuation trial suggesting that we may need to reconceptualize our approach to longer-term treatment of difficult to treat depression.

**No. 8E****BRAIN STIMULATION THERAPIES FOR TREATMENT-RESISTANT DEPRESSION**

Linda L. Carpenter, M.D. *Brown Medical School, Butler Hospital, Department of Psychiatry, 345 Blackstone Blvd, Providence, RI, 02906*



**SUMMARY:**

Central neuromodulatory techniques, such as Electroconvulsive Therapy (ECT) have been in use since the late 1930s to treat severe major depression. Meta-analyses of controlled studies support the conclusion that short-term efficacy is greater for ECT than for pharmacotherapy, but optimal technical variables, patient selection, minimizing memory impairment, and maintenance treatment are areas of continued research interest. Repetitive Transcranial Magnetic Stimulation (rTMS) is a noninvasive method of focusing subseizure-threshold stimulation on specific brain regions by passing strong magnetic fields through the scalp in the awake patient. Meta-analyses suggest rTMS has a statistically significant, but very small, effect on depressive symptoms. Data from multi-center rTMS trials will help determine whether rTMS will eventually become a widely adopted therapy. Preliminary reports of Magnetic Seizure Therapy (MST), which employs intense levels of rTMS to induce a generalized tonic-clonic seizure under anesthesia, suggest antidepressant benefits similar to ECT but with markedly reduced cognitive side effects. Vagus Nerve Stimulation (VNS) involves implantation of a pacemaker-like device in the chest wall attached to an electrode delivering pulsed electrical stimulation to the brain via afferent fibers of the 10th cranial nerve. Recent studies have suggested efficacy of adjunct VNS for treatment-resistant depression. Deep Brain Stimulation (DBS), an established therapy for movement disorders, involves direct electrical stimulation of deep neuroanatomical targets via surgically implanted electrodes and pulse generators. Pilot studies of DBS for intractable neuropsychiatric disorders are underway. Available efficacy and safety data for these brain stimulation treatments will be reviewed.

**REFERENCES:**

1. Nelsen MR, Dunner DL. Clinical and differential diagnostic aspects of treatment resistant depression. *J Psychiatr Research* 1995; 29: 43-50.
2. Journal Article: Kendler, Kenneth S. Psychiatric Genetics: A Methodologic Critique. *American Journal of Psychiatry*, Vol 162(1), Jan 2005. pp. 3-11.
3. Mayberg HS, Lozano AM, Voon V, et al. Deep brain stimulation for treatment-resistant depression. *Neuron* 2005; 45:651-660.
4. Delrahim BA, Maddux R, Rapaport MH.
5. Carpenter LL, Friehs GM, Price LH: Cervical vagus nerve stimulation for treatment-resistant depression. *Neurosurg Clin N Am* 2003; 14(2) :275-82.

**SUNDAY, MAY 21, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 9—  
DIFFERENTIATING ATYPICAL  
ANTIPSYCHOTICS IN THE TREATMENT  
OF SCHIZOPHRENIA: FROM THEORY TO  
PRACTICE**  
Supported by Pfizer, Inc.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to:

Differentiate among atypical antipsychotic therapies based on the real-world results from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE);

Apply the findings of the CATIE to choices among a range of antipsychotic medications.

**No. 9A  
PHARMACODYNAMIC DIFFERENCES AMONG  
ANTIPSYCHOTIC TREATMENTS**

Anissa Abi-Dargham, M.D. *Columbia University Medical School, 1051 Riverside Drive, New York, NY, 10032*

**SUMMARY:**

Recent brain imaging studies have shown an association between dopaminergic hyperactivity in the mesolimbic pathway and positive symptoms of schizophrenia suggesting that dopaminergic hypoactivity in the mesocortical pathway might underlie cognitive impairment and negative symptoms. Although dopamine alterations are the most directly linked to the symptoms, alterations in other transmitter systems may play a role in the genesis of the dopaminergic dysregulation. The data from these studies support a predominant role for D<sub>2</sub> receptor antagonism in the treatment of schizophrenia, while providing new strategies for the treatment of cognitive and negative symptoms. The mechanisms of action of currently used antipsychotics will be reviewed and compared, discussing known and hypothetical determinants of efficacy, safety, and atypicality. Extent, localization, and mode of D<sub>2</sub> occupancy will be central to this discussion. In addition, effects of antipsychotics at other neurotransmitter systems and interactions between the different systems will be reviewed from a therapeutic perspective.

**No. 9B  
THE ANTIPSYCHOTIC EFFECT: LESSONS FROM  
OCCUPANCY STUDIES**

W. Gordon Frankle, M.D. *Columbia University College of Physicians & Surgeons, Psychiatry, 1051 Riverside Drive, Unit#31, New York, NY, 10032*

**SUMMARY:**

Over the past 10 - 15 years neuroreceptor imaging with PET/SPECT has been increasingly utilized to determine the in vivo occupancy of antipsychotic medications at the dopamine D<sub>2</sub> receptors. The D<sub>2</sub> occupancy of antipsychotic medications has been studied in an attempt to understand differences between the antipsychotic drugs in terms of efficacy and side effect profiles, most specifically related to extrapyramidal syndrome (EPS). It has been demonstrated that the rate of EPS side effects with antipsychotics increases with greater than 80% striatal D<sub>2</sub> occupancy. The degree of occupancy required for a therapeutic effect is less clear. Whereas the D<sub>2</sub> receptor occupancy levels for typical antipsychotic medications are high, even at relatively low doses that might be considered subtherapeutic, the same does not appear to be true for atypical antipsychotic medications. This may be due to the fact that the degree to which treatment with antipsychotics affects the occupancy of D<sub>2</sub> receptors by endogenous dopamine is unknown. The data regarding D<sub>2</sub> occupancy of antipsychotic medications will be reviewed, with an emphasis on differences between the typical and atypical medications. Implications of D<sub>2</sub> blockade on the hyperstimulation of these receptors by endogenous dopamine in schizophrenia will be discussed, highlighting the role of this blockade on clinical efficacy.

**No. 9C  
EVALUATION OF METABOLIC OUTCOME DURING  
ANTIPSYCHOTIC TREATMENT: LESSONS FROM  
CATIE AND OTHER RECENT STUDIES**

John W. Newcomer, M.D. *Washington University School of Medicine, Department of Psychiatry, 660 S. Euclid, Campus Box 8134, St. Louis, MO, 63110-1002*

**SUMMARY:**

Individuals with schizophrenia and affective disorders have an increased prevalence of obesity, type 2 diabetes mellitus (T2DM), and cardiovascular disease (CVD), when compared with the general population. Results from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) indicate that patients with schizophrenia have approximately twice the general population's prevalence of the metabolic syndrome, a collection of individual risk factors - related to insulin resistance - that increase the overall risk for both T2DM and CVD. Key modifiable risk factors for insulin resistance and the metabolic syndrome are decreased fitness and increased body fat. Limited evidence indicates that drug-naïve individuals with schizophrenia can have increased abdominal adiposity and insulin resistance, with several studies documenting the poor health habits of individuals with psychosis that can contribute to medical risk. Consistent evidence from clinical trials indicates that antipsychotic medications can cause weight gain, with differential effects across individual agents. Drug effects on caloric intake versus activity-related energy expenditure remain critical areas of study. A range of evidence, including the results of recent randomized clinical trials, indicates that treatment with certain antipsychotic medications is associated with an increased risk of insulin resistance, hyperglycemia, and dyslipidemia.

Well-validated approaches can be used to quantify drug effects on metabolic endpoints. For example, an ongoing National Institutes of Health-funded study uses euglycemic-hyperinsulinemic clamps with stable isotope infusions to measure insulin actions on glucose disposal, hepatic glucose production, and lipolysis in concert with direct measures of fat mass, such as dual energy x-ray absorptiometry and magnetic resonance imaging, to study effects of changing adiposity on metabolic endpoints. Results of studies in this area can be used to target basic research, identify therapeutic approaches, and guide clinical decision-making.

**No. 9D**

**COGNITIVE RESPONSES TO ATYPICAL ANTIPSYCHOTIC MEDICATIONS: FACTORS AFFECTING THE POTENTIAL TO DIFFERENTIATE TREATMENTS**

Philip D. Harvey, Ph.D. *Mt. Sinai School of Medicine, Department of Psychiatry, 1425 Madison Avenue, Room L4-42, New York, NY, 10029*

**SUMMARY:**

Atypical antipsychotic medications have been shown to have benefits on cognition that range from small to moderate across different ability domains. While these medications have notably different pharmacological profiles, there is remarkably little evidence that these treatments have differential cognitive benefits in studies with reasonable sample sizes and research methods. Some of the different pharmacological features could be adverse (e.g., anticholinergic, antihistaminergic) and some should be beneficial (e.g., 5-HT 1A agonist properties, NE reuptake inhibition). Two possibilities exist for these findings. One is that the drugs are truly not different in their effects and the other is that the standard neuropsychological tests that have been used as cognitive outcomes are not sensitive to subtle differences, because these tests were developed to be globally sensitive to cognitive impairments. Data from the cognitive assessment components of the CATIE study will address the issue of whether larger-scale studies funded by external sources lead to detectable differences. Any differences that are found will be presented. This presentation will also review the cognitively active pharmacological components of different antipsychotic medications, demonstrate their effects in studies that have isolated these pharmacological features, and link them to the cognitive processes that they influence. Further, the presentation will also evaluate whether differential cognitive

outcomes across newer antipsychotic treatments could be detected with more specific and sensitive cognitive measures. At the end of the presentation, the audience will have a broader understanding of the cognitively beneficial effects of these treatments, which will also provide information about future drug development aimed specifically at cognitive enhancement.

**No. 9E**

**CLINICAL INTEGRATION IN THE CARE FOR PATIENTS WITH SCHIZOPHRENIA: WHAT ARE THE CURRENT BEST PRACTICES?**

Robert A. Rosenheck, M.D. *UNC Chapel Hill School of Medicine, Department of Psychiatry, CB# 7160, Chapel Hill, NC, 27599-7160*

**SUMMARY:**

This presentation will review recent research that has compared atypical antipsychotics with each other and with conventional antipsychotics and, more specifically, the results of recent cost-effectiveness research. It will consider the implications of the results of the CATIE trial for the integration of mental health, medical and rehabilitation services and for public policy and will also consider recent trials evaluating other evidence-based practices such as supported employment, Assertive Community Treatment and peer support that may have relevance for the treatment of schizophrenia.

**REFERENCES:**

1. Journal Article- Anissa Abi-Dargham and marc lauelle, Mechanisms of action of second generation antipsychotic drugs: Insights from Brain Imaging studies, *European Psychiatry*, 2005, 20, 15-27.
2. Occupancy of dopamine D2 receptors by the atypical antipsychotic drugs risperidone and olanzapine: theoretical implications. *Psychopharmacology*. April 2004; 175(4):473 ' 80.
3. Newcomer JW: Second-generation (atypical) antipsychotics and metabolic effects: A comprehensive literature review. *CNS Drugs*, 2005;19(1):1-93.
4. Barch DM. Pharmacological manipulation of human working memory. *Psychopharmacology (Berl.)*. 2004; 174:126-135.
5. Stroup TS, McEvoy JP, Swartz MS, et al. The National Institute of Mental Health Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) project: schizophrenia trial design and protocol development. *Schizophr Bull.* 2003;29:15-31.

**INDUSTRY-SUPPORTED SYMPOSIUM  
10—FIBROMYALGIA: SCIENTIFIC  
ADVANCES TO REDUCE THE BURDEN  
OF ILLNESS**

**Supported by Eli Lilly and Company**

**EDUCATIONAL OBJECTIVES:**

1. Recognize the socioeconomic burden of fibromyalgia and the need to advocate for improved care of patients with fibromyalgia
2. Demonstrate understanding of the new evidence for the pathophysiological basis of fibromyalgia
3. Describe current and emerging strategies for the treatment of patients with fibromyalgia

**No. 10A**  
**THE SOCIOECONOMIC BURDEN OF FIBROMYALGIA**

Sharon B. Stanford, M.D. *University of Cincinnati College of Medicine, Psychiatry and family medicine, 222 Piedmont Avenue, Suite 8200, Cincinnati, OH, 45219*

**SUMMARY:**

Fibromyalgia is associated with substantial loss of function and work disability. The symptoms of pain, fatigue, and weakness are most often reported to interfere with work performance. In a multicenter survey of 1604 patients with fibromyalgia, 26.5% reported receiving disability payments. In a large multicenter, outcome study of 538 patients followed in rheumatology centers, measures of pain, global severity, fatigue, sleep disturbance, anxiety, depression, and health status were unchanged over the seven-year study period and functional disability worsened slightly. In a recently completed focus group study of patients with fibromyalgia, most reported a marked negative impact on social relationships and finances, due to loss of the ability to work. Despite the substantial morbidity associated with fibromyalgia, there have been, until recently, few proven effective treatments. Recent developments in the treatment of fibromyalgia hold promise that disability will be reduced and the socioeconomic impact lessened. However, there continue to be problems with acceptance of the diagnosis of fibromyalgia among many physicians and inadequate training in the management of these patients. A recent study suggests that rheumatologists, who previously managed most fibromyalgia patients, are now less likely to follow patients with fibromyalgia after doing a consultation to rule out other causes. Therefore, patients with fibromyalgia will have to seek long-term care elsewhere with physicians who might not have the expertise to treat them. Although psychiatrists have familiarity with many of the pharmacological and nonpharmacological treatments used to treat fibromyalgia, patients are reluctant to seek help from psychiatrists for fear of being labeled mentally ill. There is clearly a need to advocate for better education of physicians -in particular psychiatrists- about fibromyalgia, especially at a time, when we are on the brink of a new era in the understanding and treatment of this often disabling illness.

**No. 10B**  
**NEW EVIDENCE FOR THE PATHOPHYSIOLOGICAL BASIS OF FIBROMYALGIA**

Lesley M. Arnold, M.D. *University of Cincinnati College of Medicine, Psychiatry, 222 Piedmont Ave., Suite 8200, Cincinnati, OH, 45219*

**SUMMARY:**

Recent evidence suggests that stress may play an important role in the development of fibromyalgia. Patients with fibromyalgia report higher levels of daily hassles than patients with rheumatoid arthritis. They report more stressful negative lifetime events than healthy controls. Finally, patients with have significantly higher prevalence rates for all forms of childhood and adult victimization than patients with rheumatoid arthritis. Patients with fibromyalgia seem to have disturbances in the two major interacting stress-response systems: the autonomic nervous system and the HPA axis. Some studies suggest that there is a mild to moderate reduction in the activities of the HPA axis in patients with fibromyalgia with decreased hypothalamic corticotrophin-releasing hormone secretion. Patients with fibromyalgia also appear to have impaired sympathetic response to stressors. Stressors may also contribute to the development of fibromyalgia through activation of certain cytokines. There is evidence in animal models that some stressors induce the production

of proinflammatory cytokines, which can induce behavioral changes that include exaggerated pain responses (hyperalgesia). Some cytokines also induce neuroendocrine and central monoaminergic changes similar to those thought to be associated with pain enhancement. In summary, both trauma and chronic stress might promote dysfunction of the stress systems and result in symptoms of fibromyalgia.

**No. 10C**  
**CURRENT AND EMERGING STRATEGIES FOR THE PHARMACOLOGIC MANAGEMENT OF FIBROMYALGIA**

Leslie J. Crofford, M.D. *University of Kentucky, Rheumatology, 740 S. Limestone St., Room J-503 Kentucky Clinic, Lexington, KY, 40536-0284*

**SUMMARY:**

New clinical trials in patients with fibromyalgia have provided further evidence of the potential efficacy of several pharmacological treatments. The results of large, multicenter, randomized, controlled trials of pregabalin, duloxetine, milnacipran, and others will be presented. Rationale for choice of agents will be discussed. Best results are achieved by a combination of pharmacologic and nonpharmacologic treatments, and a treatment algorithm will be presented.

**No. 10D**  
**LIVING WITH FIBROMYALGIA: A PATIENT'S PERSPECTIVE**

Lesley M. Arnold, M.D. *University of Cincinnati College of Medicine, Psychiatry, 222 piedmont ave., suite 8200, Cincinnati, OH, 45219*

**SUMMARY:**

Fibromyalgia is often associated with high levels of uncertainty and ambiguity among treating physicians. As a result, physicians commonly feel helpless, guilty and frustrated when faced with patients who have fibromyalgia, often resulting in a less than ideal doctor-patient relationship. In addition, patients often feel that their symptoms are not regarded as believable and may feel stigmatized by their physicians and social contacts. These factors may inhibit access to effective care and treatment. Several cases will be presented illustrating individual patients' experiences and perspectives in seeking treatment for fibromyalgia and how its symptoms impact their lives.

**REFERENCES:**

1. Wolfe F, Anderson J, Harkness D, et al: Work and disability status of persons with fibromyalgia. *J Rheumatol* 1997b; 24: 1171-1178.
2. Clauw, DJ, Chrousos GP: Chronic Pain and fatigue syndromes: overlapping clinical and neuroendocrine features and potential pathogenic mechanisms. *Neuroimmunomodulation* 1997; 4:134-153.
3. Goldenberg DL, Burckhardt C, Crofford LJ. Management of fibromyalgia syndrome. *JAMA*; 2004; 292: 2388-95.
4. Asbring P, Narvanen AL: Ideal versus reality: physicians perspectives on patients with chronic fatigue syndrome and fibromyalgia. *Soc Sci Med* 2003; 57(4): 711-720.

**INDUSTRY-SUPPORTED SYMPOSIUM  
11—EXPANDING THE  
NEUROBIOLOGICAL AND  
NEUROPSYCHOLOGICAL FOUNDATION  
OF ADHD: IMPACT TO CLINICAL  
PRACTICE**

Supported by Shire US, Inc.

**EDUCATIONAL OBJECTIVES:**

To learn more about ADHD from the neurobiology to clinical practice

**No. 11A  
ADHD NEUROPSYCHOLOGY AND EXECUTIVE  
FUNCTION DEFICITS**

Larry J. Seidman, Ph.D. *Harvard Medical School, Department of Psychiatry, 55 Fruit Street, Boston, MA, 02115*

**SUMMARY:**

Although most of our current knowledge about Attention-Deficit/Hyperactivity Disorder (ADHD) developed from clinical observations and research with children, our understanding of the disorder in adults is growing. We are discovering that adults and children with ADHD share similar clinical features, co-morbidities, neuropsychological deficits, brain abnormalities and failures in work and other life domains. However, while there are pockets of information that provide clues to neurobiological abnormalities in ADHD at different age periods (e.g., small samples demonstrating functional brain abnormalities in adults, structural brain abnormalities in children), there is relatively little systematic neurobiological information on ADHD throughout life. It has become quite clear that in order to gain a full understanding of ADHD we must integrate the emerging knowledge regarding neuropsychological function, brain function and structure in ADHD across the lifespan.

In this talk, I will review the current state of the literature pertaining to neuropsychological dysfunctions and structural brain abnormalities that are found in ADHD children and adults. We will also present new imaging data derived from our ongoing study of teenagers and adults with ADHD. This will incorporate measures of structural MRI including general segmentation, cortical parcellation, and cortical thickness, which show thinner cortices in the parietal and dorsolateral prefrontal cortex of adults with ADHD who are well matched to controls on demographics. Moreover, the ADHD adults have reduced overall gray matter, increased white matter, a significantly larger nucleus accumbens, and a smaller anterior cingulate than controls. We suspect that these structural differences may underlie the functional problems observed in ADHD, although this needs to be demonstrated.

Cognitive-neuropsychological deficits, particularly impairments in attention and executive functions, are common impairments in ADHD across the lifespan. Although not all patients with ADHD have measurable deficits on standard clinical tests, a substantial number of patients do have neuropsychological deficits (perhaps 50%). The pattern of strengths and deficits may be reflected in three broad sub-groups of ADHD patients: 1). those without neuropsychological deficits, 2). those with executive dysfunctions; 3). those with various forms of learning disability (i.e., reading or arithmetic disability) with or without formal executive dysfunctions. The effect of these disabilities on school, home, work and social functioning, and the persistent nature of many cases of ADHD, requires periodic evaluation through adolescence at least. The nature of the evaluation changes, in part, in response to the developmental phase of the patient with ADHD. Such emerging biological information is necessary to

help clarify the neurodevelopmental evolution of the disorder, and the meaning of the disorder to patients, families and treating clinicians.

**No. 11B  
STIMULANTS: THERAPEUTIC AND REINFORCING  
EFFECTS**

Nora D. Volkow, M.D. *National Institute on Drug Abuse/NIH/DHHS, Director, 6001 Executive Blvd., Room 5274, Bethesda, MD, 20892*, Gene-Jack Wang, M.D., Joanna S. Fowler, Ph.D., Yu-Shin Ding, Ph.D., James M. Swanson, Ph.D.

**SUMMARY:**

Dopamine (DA) increases in the nucleus accumbens and the subsequent activation of DA receptors underlie the reinforcing effects of psychostimulants. While amphetamine and methamphetamine cause a direct release of DA from terminals, cocaine and methylphenidate (MP) block dopamine transporters, which in turn lead to increases in extracellular DA. Pharmacological treatment with orally administered MP is the most common intervention for Attention Deficit Hyperactivity Disorder (ADHD). The therapeutic effects of MP and amphetamine have been related to their ability to raise extracellular DA. Stimulant-induced DA increases in the striatum are believed to decrease background firing rates, increasing the signal to noise ratio of striatal cells. This is the postulated mechanism for improving attention enhancement of task-related neuronal firing. When diverted for abuse, MP is administered intravenously, or by insufflation after grinding tablets and sniffing the powder. Intravenous MP has reinforcing effects similar to cocaine (euphoria) at doses that exceed a DAT blockade threshold of 60%. At clinical doses, the pharmacological effects of oral MP also exceed the 60% threshold, yet reinforcing effects rarely occur. Intravenous MP mimics the rapid phasic firing of DA neurons, which may be critical to reinforcing effects and abuse. Oral MP mimics tonic DA cell firing, which may be responsible for clinical effects. This session will address the pharmacokinetic properties of psychostimulants in serum and in brain that differ for oral and intravenous routes of administration, as well as the importance of acute tolerance in determining pharmacodynamic effects in clinical use and illegal abuse.

**No. 11C  
THE RELEVANCE OF THE TRACE AMINE PEA  
(PHENYLETHYLAMINE) TO ADHD**

Bertha K. Madras, Ph.D. *Harvard Medical School, Psychiatry, 1 Pine Hill Drive, Southborough, MA, 01772*, Gregory M. Miller, Ph.D.

**SUMMARY:**

**Introduction:** Extracellular levels of dopamine and norepinephrine are regulated by the dopamine (DAT) and norepinephrine (NET) transporters. The majority of medications used in the treatment of ADHD are robust inhibitors of the DAT and NET, and promote a significant rise in extracellular levels of dopamine and norepinephrine levels in brain. The trace amine phenylethylamine (PEA) has also been implicated in the psychopathology and therapeutic response of ADHD, but its regulation by monoamine transporters has not been documented. We investigated whether PEA is a substrate for the dopamine and norepinephrine transporters and whether amphetamine, methylphenidate and related drugs affect PEA transport.

**Results:** We demonstrate that [<sup>3</sup>H]PEA is transported by the dopamine (DAT) and norepinephrine (NET) transporters in a concentration-, time- and temperature-dependent manner. PEA affinities as a DAT or NET substrate were similar to corresponding dopamine or norepinephrine affinities. Methylphenidate was as potent in inhibiting [<sup>3</sup>H]PEA transport by the DAT than [<sup>3</sup>H]dopamine itself, indicating that PEA levels may be increased in brain by methylphenidate.

Other DAT and NET inhibitors were also effective blockers of [<sup>3</sup>H]PEA transport. Intriguingly, co-expression of the dopamine transporter and the trace amine receptor1 enhanced receptor activation, possibly indicating that trace amine receptor activity is augmented by DAT function.

Conclusions: 1. PEA is a potent substrate for catecholamine transporters; 2. PEA, augmented by methylphenidate or amphetamine, may influence the immediate and enduring effects of ADHD medications; 3. As a transporter substrate and agonist at trace amine receptors, PEA and amphetamine may contribute to the therapeutic responses of ADHD medications. Support: DA06303, DA15305, RR00168.

#### No. 11D

### NEW INSIGHTS INTO THE NORADRENERGIC SYSTEM IN ADHD

Amy F. Arnsten, Ph.D. *Yale University School of Medicine, Neurobiology, 333 Cedar St, New Haven, CT, 06510*

#### SUMMARY:

Much research has focused on the important role of dopamine in ADHD. However, more recent studies have shown that many medications used to treat ADHD have important noradrenergic actions as well. This presentation will discuss the critical role of norepinephrine in the regulation of prefrontal cortical (PFC) executive functions, and how these noradrenergic actions may contribute to the therapeutic effects of both stimulant and nonstimulant medications. Recent biochemical and behavioral studies in rats have shown that low doses of stimulants improve PFC cognitive abilities and increase norepinephrine as well as dopamine release in the PFC. These cognitive-enhancing effects are reversed by either alpha-2 adrenoceptor or dopamine D1 receptor antagonists. Research in animals has shown that norepinephrine enhances PFC function through actions at post-synaptic, alpha-2A-adrenoceptors. Importantly, single unit recordings show that alpha-2A receptor stimulation strengthens the delay-related firing of PFC neurons, the cellular basis of working memory, behavioral inhibition and attention regulation. Conversely, insufficient alpha-2 receptor stimulation in PFC leads to locomotor hyperactivity, poor impulse control and weakened working memory. Patients with genetic alterations in dopamine beta hydroxylase, or other norepinephrine-related genes, may similarly have weaker PFC regulation of behavior and attention. Medications that optimize noradrenergic transmission strengthen these executive abilities.

#### No. 11E

### ADVANCES IN THE THERAPEUTICS OF ADHD

Paul G. Hammerness, M.D. *Massachusetts General Hospital, 55 Fruit Street, Warren 705, Boston, MA, 02114*

#### SUMMARY:

With the high prevalence of ADHD, there is a need for physicians to be more familiar with the role of pharmacotherapy in the treatment of this condition. Stimulant and nonstimulant medications exist to treat ADHD. Different trials using various stimulants, including methylphenidate (MPH) and mixed amphetamine salts (MAS), have shown superior efficacy in treating ADHD. Extended-release formulations of some of these stimulants have made it possible for all-day coverage of ADHD symptoms in patients. Amelioration of ADHD symptoms has also been achieved with the use of nonstimulants such as atomoxetine and bupropion. Although, as a class, stimulants have been shown to be more efficacious than the nonstimulants, there are situations in which a nonstimulant may be preferred. The latest clinical findings with both stimulant and nonstimulant medications will be presented. Emerging clinical data on a novel formulation of

a methylphenidate transdermal system will be presented. Clinical data on a new extended formulation of guanfacine, as well as an extended-release formulation of dexamethylphenidate, will be presented.

#### REFERENCES:

1. Seidman LJ, Doyle A, Fried R, Valera E, Crum K, Matthews L. Neuropsychological function in adults with Attention-Deficit Hyperactivity Disorder. *Psychiatric Clinics of North America*, 2004; 27: 261-282.
2. Volkow ND, Swanson JM: Variables that affect the clinical use and abuse of methylphenidate in the treatment of ADHD. *Am.J.Psychiatry* 2003; 160(11):1909-1918.
3. Miller GM, Verrico CD, Jassen A, Konar M, Yang H, Panas H, Bahn M, Johnson.
4. Arnsten, A.F.T. and Li, B.-M., Neurobiology of executive functions: Catecholamine influences on prefrontal cortical function. *Biological Psychiatry*, epub, Nov 17, 2004.

### INDUSTRY-SUPPORTED SYMPOSIUM

## 12—THE IMPACT OF ANXIETY DISORDERS: A CASE-BASED APPROACH TO IMPROVING OUTCOMES AND REMOVING STIGMA

Supported by Cephalon, Inc.

#### EDUCATIONAL OBJECTIVES:

- Assess the public and individual health consequences of anxiety disorders.
- Discuss the neurobiological underpinnings of anxiety disorders.
- Implement a treatment plan that incorporates non-pharmacologic and pharmacologic strategies to enhance patient outcomes.

#### No. 12A

### PUBLIC HEALTH CONSEQUENCES OF ANXIETY: A SURGEON GENERAL'S PERSPECTIVE

David Satcher, M.D. *Morehouse School of Medicine, 720 Westview Dr., SW, Atlanta, GA, 30310-1495*

#### SUMMARY:

By certain indicators, the recognition and treatment of mental illnesses in the United States is at an all-time high. A closer look, however, reveals a more disturbing picture of unmet needs, misused modalities, and lingering stigma. The recently completed National Comorbidity Survey Replication (NCS-R) brought into stark focus the public health consequences of several mental disorders. Among them, anxiety was found to be more prevalent than either mood or substance disorders. Inadequately treated anxiety disorders can lead to debilitating outcomes including impaired socialization, substance abuse, career disruptions, and reduced quality of life. What are the individual and societal costs of under- or untreated anxiety? How can public policy identify and address modifiable factors contributing to this treatment gap? In this presentation, the public health consequences of anxiety will be delineated and analyzed with a goal of fostering optimal care for anxious persons.

#### No. 12B

### INDIVIDUAL CONSEQUENCES OF ANXIETY

Risa B. Weisberg, Ph.D. *Brown University, Department of Psychiatry, 345 Blackstone Blvd, Providence, RI, 02906*

**SUMMARY:**

Anxiety disorders have a host of negative consequences for patients. Individuals suffering from anxiety have impaired social and occupational functioning and may have reduced educational attainment. Results of a recent study suggest that certain anxiety disorders may also be associated with neuropsychological dysfunction, including impairment in episodic memory and executive functioning. Further, patients with anxiety disorders report relatively poor physical functioning and may be at increased risk for certain medical comorbidities. Anxiety disorders are also associated with high levels of psychiatric comorbidity and may increase the risk of developing major depression. Debate exists over the degree of suicidality associated with anxiety disorders, but some recent findings suggest that this most serious consequence is often found in patients with certain anxiety disorders, even in the absence of depression. This presentation will review the current literature on quality of life, impairment, and comorbidities in individuals with anxiety disorders and will provide a background on the serious implications that anxiety has for our patients.

**No. 12C**  
**ANXIETY DISORDERS: A GLIMPSE INSIDE THE BRAIN**

Ned H. Kalin, M.D. *University of Wisconsin, Department of Psychiatry, 6001 Research Park Blvd, Madison, WI, 53719*

**SUMMARY:**

Research findings have begun to characterize the brain neurocircuitry involved in mediating adaptive anxiety as well as that associated with psychopathology. Research suggests that the systems that mediate initial anxiety responses differ from those involved in the maintenance and termination of anxiety. An important issue in patients with anxiety disorders is that they have difficulty regulating their anxiety and fear-related responses. Data from rodent and nonhuman primate studies will be presented that elaborate the roles of the amygdala, the bed nucleus of the stria terminalis, and the prefrontal cortex in mediating and regulating anxiety responses. In addition, data from human functional imaging studies will be presented from untreated and treated patients with different anxiety disorders. Taken together these findings suggest that alterations in prefrontal-limbic interactions are a fundamental part of the pathophysiology underlying the symptoms associated with anxiety disorders.

**No. 12D**  
**LINKING SYMPTOMS TO TREATMENT SELECTION IN ANXIETY DISORDERS**

Murray B. Stein, M.D. *University of California, San Diego, Department of Psychiatry, 8950 Villa La Jolla Drive, Suite C-207, La Jolla, CA, 92037*

**SUMMARY:**

In clinical practice, the management of anxiety disorders requires an individualized treatment strategy linked to symptoms. In addition to identifying specific symptoms, it is important to assess their context, frequency, detailed phenomenology, and degree of associated distress and impairment, as well as the patient's attitude and degree of insight into and resistance to the symptoms. Treatment selection is also complicated by comorbidities and symptoms that span beyond a psychiatric presentation and manifest as somatic complaints. Because of the chronicity of anxiety disorders, an ideal pharmacotherapeutic intervention should provide long-term relief of symptoms with no or limited side effects. Agents with novel mechanisms of action, including the GABA reuptake inhibitors, may offer anxiolytic properties beyond traditional agents. Combining non-pharmacologic treat-

ments with pharmacological therapies can also improve outcomes. Using a case-based format, this presentation will offer strategies for the management of anxiety disorders by linking symptoms with the appropriate treatment choice to improve patient outcomes.

**No. 12E**  
**NONPHARMACOLOGIC APPROACH TO THE TREATMENT OF ANXIETY DISORDERS**

Edna B. Foa, Ph.D. *University of Pennsylvania, Department of Psychiatry, 3535 Market St., 6th floor, Philadelphia, PA, 19104*

**SUMMARY:**

There is consistent evidence that cognitive behavioral therapy (CBT) is an effective first-line strategy for the treatment of anxiety disorders. While CBT is distinct from other psychotherapies in several key areas, there are commonalities across CBT programs, and the cognitive behavioral conceptualization of anxiety disorders directly informs how CBT is used to treat them. The primary CBT treatment programs that have been utilized with the anxiety disorders include exposure therapy, anxiety management, and cognitive therapy. CBT programs must be closely tailored to each disorder if optimal outcomes are to be achieved. Even so, efficacy of CBT varies according to each disorder. This presentation will discuss the effects of combining CBT and medication across disorders, and how this approach is affected by the CBT program selected, as well as the type of medication used. Outcome research on the treatment of anxiety disorders will be reviewed, with special emphasis on obsessive-compulsive disorder, posttraumatic stress disorder, and social anxiety disorder.

**REFERENCES:**

1. Wang, PS, Berglund, P, Olfson, M, Pincus, H, Wells, K, Kessler, R. Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005;62:603-613.
2. Airaksinen E, Larsson M, Foresell Y: Neuropsychological functions in anxiety disorders in population-based samples: evidence of episodic memory dysfunction. *Journal of Psychiatric Research*, 2005;39(2):207-14.
3. Ruiz, P: Fear and anxiety: the benefits of translational research. *Am J Psychiatry*, 2005:162-200.
4. Keller, MB: Raising the expectations of long-term treatment strategies in anxiety disorders. *Psychopharmacol Bull*. 2002;36 Suppl 2:166-74.
5. Cahill SP, Foa EB: Anxiety Disorders: Cognitive Behavior Therapy. In Kaplan & Sadock's Comprehensive Textbook of Psychiatry 8th edition, edited by Sadock BJ, Sadock VA, 2005, pp 1788-1799.

**INDUSTRY-SUPPORTED SYMPOSIUM**  
**13—NEW VISTAS IN TREATMENT-RESISTANT DEPRESSION**  
**Supported by Pfizer, Inc.**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to:

1. Review the current neuroscience and neurobiology of mood disorders.
2. Understand the evolving concepts and clinical approaches to treatment resistant depression.
3. Discuss the impact of mood disorders on public health and public policy.

**No. 13A**  
**EVOLVING CONCEPTS IN TREATMENT-RESISTANT DEPRESSION**

Charles B. Nemeroff, M.D. *Emory University School of Medicine, Department of Psychiatry and Behavioral Sciences, 101 Woodruff Circle, Suite 4000, Atlanta, GA, 30322*

**SUMMARY:**

Although there are many drugs and psychotherapies available to treat major depression, the overall treatment outcome among depression patients is usually far from optimal. Regardless of the initial choice of antidepressant, about 30% to 50% of patients with a major depressive episode will not respond sufficiently in an acute treatment trial to first-line treatment and will not return to pre-morbid levels of functioning.

Most of the current studies have focused on serotonin and norepinephrine-containing neural systems as central to the pathophysiology of depression. There are a number of other areas that are being explored such as genetics, polymorphisms, hypothalamic-pituitary-adrenal (HPA) axis activity and the role of other neurotransmitter systems, i.e., dopamine, CRF, Substance P. Augmentation strategies using atypical antipsychotics or mood stabilizers is an active avenue of investigation. There is also exploration into using brain imaging or blood markers to predict response to medication. This can eliminate the need for the use of 'trial and error' of the various pharmacological interventions and allow for a targeted medication or combination of medications for a faster treatment response.

Most patients treated for an episode of unipolar or bipolar major depression are treatment resistant in the sense that the majority do not achieve full remission with the first somatic or psychosocial treatment they receive. This poses a tremendous burden on individuals, their families and the healthcare system.

**No. 13B**  
**NEUROPHARMACOLOGICAL BASIS FOR TREATMENT STRATEGIES IN THE MANAGEMENT OF REFRACTORY DEPRESSION**

Stephen M. Stahl, M.D. *Neuroscience Education Institute, 5857 Owens Avenue, Suite 102, Carlsbad, CA, 92008*

**SUMMARY:**

First line treatments for depression have been conceptualized as those that generally enhance serotonergic neurotransmission, noradrenergic neurotransmission, or both. Failure of this approach can be due to medication intolerance, lack of any notable treatment effect, satisfactory improvement of some but not all symptoms, or even worsening of some symptoms due to activation of bipolar disorder. When first line treatments fail, a rational neuropharmacological strategy is to deconstruct the patient's depressive syndrome into its symptomatic components, and then to match each symptom to a hypothetically malfunctioning neuronal circuit. Since each circuit is regulated by a unique portfolio of neurotransmitters and receptors, this allows targeting each symptom in every hypothetically malfunctioning circuit, often with a portfolio of agents that targets more than one neurotransmitter. This includes not only agents that target the serotonin and norepinephrine neurotransmitters that regulate these circuits, but also dopamine (e.g., atypical antipsychotics, dopamine agonists), glutamate (e.g., lamotrigine, riluzole, memantine), histamine (modafinil, armodafinil), GABA (eszopiclone, indiplon, tiagabine), and voltage gated ion channels (gabapentin, pregabalin, other anticonvulsants). Novel agents in testing target peptide neurotransmitters (e.g., neurokinin 3 receptors, CRF1 receptors, cannabinoid 1 receptors). It may even become feasible to target circuits with direct stimulation rather than with drugs in an attempt to create a "perfect storm"

with deep brain stimulation, vagal nerve stimulation or transcranial magnetic stimulation.

**No. 13C**  
**NEW STRATEGIES FOR TREATMENT-RESISTANT DEPRESSION**

Linda L. Carpenter, M.D. *Brown Medical School, Butler Hospital, Department of Psychiatry, 345 Blackstone Blvd, Providence, RI, 02906*

**SUMMARY:**

One of the most common and difficult challenges clinicians face is determining the next treatment step for depressed patients who do not experience adequate response to antidepressant monotherapy. Of those treated with an adequate antidepressant, only about one-third achieves remission from all symptoms. Many individuals with depression will require the use of adjunct medications on at least a short-term basis for treatment of residual symptoms. The use of combination and augmentation strategies has become the standard of care for treatment resistant depression (TRD). Novel pharmacological and non-pharmacological approaches are clearly needed to bring relief to patients with TRD.

Because treatment of TRD often requires rational medication combinations and off-label prescribing, clinicians need to be familiar with the available safety and efficacy data supporting each treatment intervention. This presentation will review the empirical clinical evidence for efficacy and safety of pharmacological and somatic therapies used for TRD, their relative advantage and disadvantages, and the limitations of the available evidence base.

**No. 13D**  
**RE-EVALUATING CONCEPTS OF DEPRESSION: BIPOLAR SPECTRUM**

S. Nassir Ghaemi, M.D. *Emory University School of Medicine, Psychiatry, The Emory Clinic, 1365 Clifton Road, NE, Building B, Suite 6100, Atlanta, GA, 30322*

**SUMMARY:**

**Objective:** Recognize the extent of depression in bipolar disorder and evaluate the treatment approaches in this complex illness.

Until recently, the management of bipolar disorder focused primarily on mania, with little attention paid to bipolar depression. Bipolar depression is much more pervasive and prominent than mania in terms of time spent with symptoms and the impact of those symptoms on patients' lives. The importance of recognizing and treating bipolar depression is now being realized.

Studies have shown that 47% of bipolar patients' days were spent with symptoms and of the symptomatic days, approximately two thirds were spent in depression. Furthermore, patients followed for 1 year revealed an approximately 3-fold greater problem with residual or breakthrough depression compared with mania, despite widespread use of both mood stabilizers and antidepressants.

Treating individuals with bipolar depression require a different set of strategies than those with unipolar depression. Antidepressants seem often less effective, and sometimes harmful. Judicious combinations of mood-stabilizing agents, sometimes with antidepressants, are frequently needed. I will review the concept of "bipolar spectrum disorder", which reflects features of depressive illness (e.g., atypical or psychotic features, early age of onset, recurrence) and treatment response (antidepressant tolerance, manic switch) that may identify bipolar spectrum illness among patients with treatment resistant depression.

## REFERENCES:

1. Tamminga CA and Nemeroff CB, Blakeley RD et al. Developing novel treatments for mood disorders: accelerating discovery. *Biol Psychiat* 2002;52:589-609.
2. Stahl SM: Deconstructing Psychiatric Disorders, Part 1: Genotypes, SYmptom Phenotypes, and Endophenotypes. *J Clin Psychiatry* 2003; 64: 9, 982-983.
3. Ghaemi N, Ko JY, Goodwin FK. "Cade's disease" and beyond: misdiagnosis, antidepressant use, and a proposed definition for bipolar spectrum disorder.
4. Price LH, Carpenter LL, Rasmussen SA: Drug combination strategies. In Amsterdam JD, Hornig M, Nierenberg AA (Eds): *Treatment-Resistant Mood Disorders*. Cambridge University Press, Cambridge, UK, pp 194-222, 2001.
5. Ghaemi N, Ko JY, Goodwin FK. "Cade's disease" and beyond: misdiagnosis, antidepressant use, and a proposed definition for bipolar spectrum disorder.
6. *Can J Psychiatry*. 2002 Mar;47(2):125-34.

**SUNDAY, MAY 21, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM  
14—NEW DEVELOPMENTS IN  
SCHIZOPHRENIA: FROM NEUROBIOLOGY  
TO PUBLIC HEALTH  
Supported by Solvay Pharmaceuticals and  
Wyeth Pharmaceuticals**

## EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium the participant should be able to: discuss recent developments in the pharmacologic treatment of schizophrenia, will be familiar with current thinking as to the assessment and management of cognitive dysfunction in schizophrenia, will be familiar with our current understanding of the neurobiology of psychosis, be familiar with the metabolic adverse effects of antipsychotic medication and how to manage them, have an understanding of the public health implications of treatment decisions and disease management in schizophrenia

**No. 14A  
PHARMACOLOGIC TREATMENT OF  
SCHIZOPHRENIA: THE STATE-OF-THE-ART**

John M. Kane, M.D. *The Zucker Hillside Hospital, Department of Psychiatry, 75-59 263 Street, Glen Oaks, NY, 11004-1150*

## SUMMARY:

Antipsychotic medication plays a key role in the acute and long-term management of schizophrenia. Numerous clinical trials have been conducted in recent years shedding increasing light on the spectrum of activity of medications as well as the risk-benefit and cost-benefit ratios. This presentation will summarize and critique the current state of our knowledge with regard to acute and long-term treatment as well as the management of poor or partial responders.

It is increasingly difficult for clinicians to critically evaluate and assimilate new findings from a variety of studies with different designs, patient populations and results. Response to treatment remains heterogeneous and often unpredictable. Nonadherence rates remain high and many patients experience relapse and rehospitaliza-

tion as a result of inadequate disease management and poorly integrated treatment programs.

Enormous progress could be made providing a consistent, evidence-based public health perspective to the treatment of schizophrenia.

**No. 14B  
FROM DOPAMINE TO DELUSIONS:  
UNDERSTANDING PSYCHOSIS FROM THE BENCH  
TO THE BEDSIDE**

Shitij Kapur, M.D. *University of Toronto, Department of Research, 33 Russell Street, Toronto, ON, M5S 2S1*

## SUMMARY:

The clinical hallmark of schizophrenia is psychosis - an experience at the phenomenological level while most theories about how antipsychotics work focus on neurochemicals level. How can one relate these biological findings to the psychological reality of schizophrenia. It has been proposed that dopamine firing has a role in detection of novel unpredicted rewards (Schultz et al.) and that dopamine release, particularly within the mesolimbic system, has a central role in mediating the "salience" of the environment and its internal representations (Berridge et al.). We propose a dysregulated hyperdopaminergic state (whatever its primary origins) leads to a process of abnormal sense of novelty and abnormal assignment of salience. Delusions are a cognitive effort by the patient to make sense of these aberrantly salient experiences and associations, whereas hallucinations reflect a direct experience of the aberrant salience of internal representations. Antipsychotics, in this framework, exert their anti-"psychotic" effect by "dampening" the motivational salience of these abnormal experiences and associations - and by doing so provide a platform for psychological resolution of symptoms. This idea runs counter to the well accepted "delayed onset" of antipsychotic action and data will be provided which tests and rejects the delayed-onset hypothesis. The talk will further show that what drugs do most is create a "detachment" from symptoms, and under these conditions one of the first effects is that psychotic symptoms do not impact behaviour as much. Other predictions of this hypothesis - particularly regarding the possibility of synergy between psychological and pharmacological therapy will be presented.

**No. 14C  
COGNITIVE FUNCTIONING IN SCHIZOPHRENIA:  
COGNITIVE IMPAIRMENTS AS CLUES FOR  
TREATMENT DEVELOPMENT**

Robert M. Bilder, Ph.D. *David Geffen School of Medicine at UCLA, Psychiatry & Biobehavioral Sciences and Psychology, 760 Westwood Plaza, Room C8-849, Los Angeles, CA, 90095*

## SUMMARY:

Cognitive impairment in schizophrenia has both global and specific features. While patients with schizophrenia have impairments in nearly every cognitive domain, there is a clear gradient of severity with some abilities much more impaired than others. This gradient of severity defines a signature of impairments that are functionally relevant, that is, associated with the severity of impairments in everyday life skills. The causes of cognitive impairment in schizophrenia are less clear than in clearly degenerative conditions such as Alzheimer's or Huntington's disease, where clear brain changes can be detected. However, there are considerable imaging data implicating dysfunctions in different circuits, such as thalamocortical or frontostriatal connections. These data will be reviewed in the presentation. In addition, recent genetic data have implicated several different genes as potential factors which influence cognition and subsequent



functional outcomes. For instance, variations in the COMT and BDNF genotypes are associated with cognitive changes in both normal and schizophrenic samples, as will be briefly reviewed in this presentation. Finally, results of studies with pharmacological probes and postmortem assessments have helped to identify some potential neurotransmitter bases for these impairments (e.g., norepinephrine, glutamate). While several studies using specific pharmacological interventions (e.g., cholinesterase inhibitors, SSRI antidepressants) have failed to enhance cognition in schizophrenia, there are still multiple viable targets for pharmacological intervention. These new targets will also be discussed in detail.

#### No. 14D METABOLIC RISKS OF SECOND-GENERATION ANTIPSYCHOTIC MEDICATIONS

Christoph U. Correll, M.D. *The Zucker Hillside Hospital, Psychiatry Research, 75-59 263 Street, Glen Oaks, NY, 11004*, Umesh H. Parikh, M.D., Tahir Mughal, M.D., Vladimir Olshanskiy, M.D., Richard R. Pleak, M.D., Manoj Shah, M.D., Zinoviy Gutkovich, M.D., Carmel Foley, M.D., Anil K. Malhotra, M.D.

#### SUMMARY:

**Background:** Second-generation antipsychotics (SGAs) are preferred over conventional neuroleptics due to a reduced risk for acute and chronic neuromotor side effects, broader efficacy and, potentially, improved compliance. On the other hand, the association between SGAs and weight gain, glucose and lipid metabolism have raised considerable concern among clinicians researchers and policy makers.

**Methods:** Review of the mechanisms and effects of antipsychotic-induced weight gain with a particular focus on the pathophysiology and consequences of metabolic syndrome.

**Results:** SGA treatment leads to predictable changes in weight. Weight gain and, particularly, visceral adiposity adversely affect insulin sensitivity, lipid metabolism, and blood pressure, all risk factors for future cardiovascular morbidity. Although the mechanisms for metabolic abnormalities are complex and poorly understood, SGAs are associated with different levels of metabolic risk, with some potentially exerting a direct negative effect on glucose metabolism independent of changes in adiposity.

**Conclusions:** Clinicians should consider the risk for adverse metabolic outcomes in their evaluation and use of antipsychotic treatment. Education, routine monitoring of weight, waist circumference, glucose and lipid levels, and blood pressure, as well as a careful risk/benefit assessment of specific treatments are required to improve outcomes and reduce long-term adverse effects on public health.

#### REFERENCES:

1. Journal Article- Leucht S, Barnes T, Kissling W, et al: Relapse prevention in schizophrenia with new generation antipsychotics: A systematic review and explorative metaanalysis of randomized controlled trials. *Am J Psychiatry* 2003; 160(7):1209-1222.
2. 1. Kapur S, Arenovich T, Agid O, Zipursky R, Lindborg S, Jones B: Evidence for onset of antipsychotic effects within the first 24 hours of treatment. *Am J Psychiatry* 2005; 162(5):939-46.
3. 5. Harvey PD, Green MF, Keefe RSE, Velligan DI: Cognitive functioning in schizophrenia: a consensus statement on its role in the definition and evaluation of effective treatments for the illness. *J Clin Psychiatry* 2004; 65:361-372.
4. Newcomer JW: Metabolic risk during antipsychotic treatment. *Clin Ther.* 2004 Dec;26(12):1936-46.

#### INDUSTRY-SUPPORTED SYMPOSIUM 15—VITAL SIGNS IN PSYCHIATRY: A PERSPECTIVE ON SLEEP ACROSS THE LIFE CYCLE Supported by Sepracor, Inc.

#### EDUCATIONAL OBJECTIVES:

- Review developmental aspects of sleep and provide an understanding of normal sleep patterns and common pediatric sleep problems

- Describe the epidemiology of insomnia, the impact of underlying psychiatric comorbidities on sleep, and general approaches to treatment of insomnia in the adult population

- Review the prevalence and impact of sleep problems in medical and psychiatric disorders, with a focus on the complex relationships between depression and insomnia; the presentation of sleep problems in patients with depression; and treatment options in depressed patients with continued complaints of sleep disruption

- Explore the reasons why women report more difficulty sleeping than men, and how this difficulty may relate to lifestyle, hormonal changes, and underlying disorders that are more common in women, particularly depression

- Describe changes in normal sleep that occur as people age, the causes and consequences of poor sleep in the elderly, the differentiation of psychiatric and medical comorbidities in this population, and behavioral and pharmacologic treatment approaches

- Understand the range of behavioral and pharmacologic treatments for acute or chronic sleep problems

#### No. 15A SLEEP IN INFANCY, CHILDHOOD, AND ADOLESCENCE: NORMAL SLEEP PATTERNS, DEVELOPMENTAL ISSUES, AND SLEEP PROBLEMS

Jodi A. Mindell, Ph.D. *St. Joseph's University, Department of Psychology, 5600 City Avenue, 223 Post, Philadelphia, PA, 19131*

#### SUMMARY:

This presentation will explore normal sleep patterns, sleep architecture, and sleep behaviors as they develop and change from infancy through adolescence.

The types of sleep dysfunction leading to excessive daytime sleepiness (EDS) and the wide-ranging consequences of EDS in the pediatric population (mood changes, cognitive deficits, behavioral problems, performance deficits, family disruption) will provide a rationale for examining the factors that positively and negatively impact sleep in children. These factors include those that are biological (due to nature) versus those that are environmental (due to nurture).

Common sleep problems will be considered based on age-related changes in normal sleep and on sleep disorders that primarily or exclusively affect children. These sleep problems include behavioral insomnia of childhood, physiologically based sleep disorders, and pediatric insomnia. Although the physiologic mechanisms that underlie sleep disorders in children may be similar to those in adults, the clinical manifestations may differ considerably. These differences will be reviewed in the context of appropriate diagnostic and treatment approaches in the pediatric population. The presentation will end with a consideration of whether sleep problems in childhood impact sleep in later life.

**No. 15B  
INSOMNIA IN ADULTHOOD: CAUSES,  
CONSEQUENCES, AND TREATMENT**

Ned H. Kalin, M.D. *University of Wisconsin, Department of Psychiatry, 6001 Research Park Blvd, Madison, WI, 53719*

**SUMMARY:**

This presentation will examine the epidemiology, impact, evaluation, and general approaches to treatment of insomnia in the adult population. A review of insomnia definitions, including diagnostic criteria, will form the basis for an exploration of the epidemiology, risk factors, and consequences that accompany sleep difficulties in adults. Epidemiologic studies indicate that insomnia disorders (symptoms coupled with daytime consequences) are common, affecting 9% to 15% of the general adult population. Consequences include decreased quality of life; inability to enjoy family and social relationships; difficulty concentrating and memory problems; increased absenteeism and decreased job performance; increased incidence of psychiatric disorders, pain, and poor health; and excessive healthcare utilization. Notably, the association of insomnia with depression, anxiety, cardiovascular disease, and other conditions places a large burden on patients as well as on the healthcare delivery system. Furthermore, insomnia is a risk factor for developing subsequent psychiatric disorders, making it an even more salient condition for early intervention.

Practice parameters for the evaluation of chronic insomnia will be presented, highlighting the usefulness of a detailed clinical history, sleep diaries and questionnaires, actigraphy, and polysomnography in reaching the proper diagnosis. The differential diagnosis will include a discussion of the major presentations of insomnia, including those secondary to other conditions (eg, medical or psychiatric conditions), those associated with other sleep disorders (eg, sleep apnea, restless legs syndrome), and primary insomnia disorders (eg, idiopathic insomnia).

Behavioral and pharmacologic treatments of insomnia continue to evolve, supported by evidence-based research. An overview of behavioral treatments will describe types of treatment, their efficacy, results of recent testing in more diverse populations, and the application of simpler modalities. A discussion of pharmacologic treatment will include the use of benzodiazepine receptor agonists, off-label drugs, new pharmacologic approaches for treating chronic insomnia, and novel treatments under development. Conclusions from the June, 2005, National Institutes of Health State-of-the-Science Conference, "Manifestations and Management of Chronic Insomnia in Adults," will inform this presentation of treatment approaches having the most recent evidence-based recommendations. The presentation will conclude with a suggested treatment approach.

**No. 15C  
INSOMNIA SECONDARY TO MEDICAL OR  
PSYCHIATRIC COMORBIDITY: IMPLICATIONS FOR  
EVALUATION AND MANAGEMENT**

Matthias K. Lee, M.D. *Virginia Mason Sleep Disorders Center, PO Box 900, 925 Seneca St. Mailstop H10-SDC, Seattle, WA, 98111*

**SUMMARY:**

Sleep problems are often secondary to medical or psychiatric disorders. After briefly reviewing medical comorbidities associated with insomnia, this presentation will focus on psychiatric comorbidities, which are common causes of insomnia. Sleep disruption is one of the diagnostic criteria for several psychiatric disorders, including major depressive disorder and generalized anxiety disorder. For example, in major depressive disorder, which has been most studied in relation to sleep, insomnia is reported by 80% or more of patients. However, the relationship between psychiatric disorders and insom-

nia, is complex. This presentation will review the evidence demonstrating that sleep disturbance is correlated with psychiatric disorders, that psychiatric disorders are common in subjects with insomnia, that insomnia may presage new onset or relapse of depression, and that sleep disturbance may exacerbate depression. The greater risk of depression in women and the implications for sleep will be highlighted. In addition, the way in which other health problems may disrupt sleep and thus negatively impact mood will be discussed.

Behavioral and pharmacologic management of sleep problems in patients with medical and psychiatric disorders, with a focus on patients with depression, will be presented. Insomnia that persists despite treatment of the underlying condition may be particularly challenging.

**No 15D  
VITAL SIGNS IN PSYCHIATRY: A PERSPECTIVE  
ON SLEEP ACROSS THE LIFE CYCLE**

Meir Kryger, *University of Manitoba, Sleep Disorders Centre, R2034, 351 Tache Avenue, Winnipeg, MB, R2H 2A6 Canada*

**SUMMARY:**

Women are more likely to have insomnia diagnoses and to report higher rates of insomnia symptoms, daytime consequences, and dissatisfaction with sleep than men. However, the specifics of gender-related differences in sleep architecture and the development of sleep-related disorders are not fully understood. While ample neurophysiologic and neuroanatomic evidence supports gender-related differences in sleep, only very recently has research begun to specifically address women's sleep in health and disease. A focal point of study has been exploration of the influence of estrogens on the distinctive changes of sleep during reproductive cycle-related events and disorders. This presentation will examine sleep disruption related to the normal menstrual cycle as well as to menstrual cycle disorders, such as premenstrual dysphoric disorder and polycystic ovarian syndrome. Common sleep problems during pregnancy and their impact on maternal and fetal health will be reviewed. The frequency of sleep complaints increases during the menopausal transition. Recent studies suggest that many risk factors, including menopausal status, contribute to sleep difficulties in midlife women. The interrelationship between hormonal fluctuations, vasomotor symptoms, depression, and sleep disruption during the menopausal transition will be examined, as well as the role of hormonal therapy in improving sleep. As menopausal symptoms become less common with time, other problems, such as depression or underlying medical conditions, become predominant causes of sleep problems. The presentation will conclude with a suggested approach for the evaluation of perimenopausal/menopausal women with sleep problems.

**No. 15E  
SLEEP IN THE ELDERLY: IS POOR SLEEP A  
NORMAL CONCOMITANT OF ADVANCING AGE?**

Sanford I. Finkel, M.D. *3127 Greenleaf Ave, Wilmette, IL, 60091*

**SUMMARY:**

This discussion will focus on the changing nature of sleep in the elderly. Changes in the pattern of normal sleep occur with advancing age. Epidemiologic studies have established that the rate of sleep problems is highest in elderly populations. While sleep problems are reported by 20% to 40% of American adults, the prevalence increases with age. In a National Institute on Aging survey of over 9000 noninstitutionalized elderly participants (aged  $\geq 65$  years), over half reported that at least one of five common sleep complaints (trouble falling asleep, waking up, awaking too early, needing to nap, or not feeling rested) occurred most of the time. However, it

is increasingly appreciated that aging, per se, is not associated with poor sleep. Instead, underlying comorbidities are the major contributing factors. The most relevant of these are sleep apnea, restless legs syndrome, and psychiatric disorders (anxiety and depression). The use of prescription medications may also cause insomnia.

The management of sleep problems in the elderly is particularly important, as the consequences of sleep disruption can be particularly severe. Sleep difficulties contribute to next-day impairments; are correlated with daytime sleepiness and napping; reduce daytime well-being, functioning, and quality of life; and have adverse effects on attention, response time, recall, and performance. The decrease in cognitive ability associated with sleep disruption can be confused with dementia. Insomnia in the elderly is also associated with falls and hip fractures, which are primary factors in the decision to place an elderly person in a long-term care facility. This presentation will discuss treatment approaches, including evidence for the efficacy of behavioral and pharmacologic options in this population.

### **INDUSTRY-SUPPORTED SYMPOSIUM 16—INTERRUPTING THE CYCLE OF VASCULAR DISEASE AND DEPRESSION Supported by Forest Pharmaceuticals, Inc.**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to:

1. Understand the mechanisms that underlie the relationship between vascular disease and depression, identify the relationship between depression and metabolism as it relates to diabetes, recognize the impact that stroke has on the development of depression, manage patients that present with comorbid depression and vascular disease, and implement safe and effective treatments for patients with vascular disease and depression.

#### **No. 16A VASCULAR DISEASE: MECHANISMS UNDERLYING THE RELATIONSHIP**

Dominique L. Musselman, M.D. *Emory University School of Medicine, Psychiatry & Behavioral Sciences, 101 Woodruff Circle, Atlanta, GA, 30322*

#### **SUMMARY:**

Current research provides evidence for platelets as one of the biological substrates underlying the increased risk of depressed patients for cardiovascular disease. Understanding the role of platelets in depression and cardiovascular disease has several important implications, including 1) an expansion of the neurobehavioral symptoms relevant to diagnosis and treatment, and 2) diagnostic utility of peripheral markers of inflammation. Biological markers, such as C-reactive protein are useful indices for inflammatory response. Moreover, depression-related modulation of cortisol levels directly impacts insulin resistance and vascular reactivity, which may influence platelet aggregation. Recent data suggest that aggressive treatment strategies initiated before inflammation-inducing treatments may prevent depression before it occurs. Selective serotonin reuptake inhibitors (SSRIs) are known to inhibit platelet activity, hence the antiplatelet and endothelium-protective properties of SSRIs may represent an additional advantage in patients with depression and comorbid cardiovascular disease.

#### **No. 16B THE BIDIRECTIONAL RELATIONSHIP BETWEEN DIABETES AND DEPRESSION**

Sanjay T. Mathew, M.D. *Mount Sinai School of Medicine, Psychiatry, One Gustave Levy Place, Box 1218, New York, NY, 10029*

#### **SUMMARY:**

Those with diabetes, a serious disorder that afflicts an estimated 16 million Americans, are at greater risk for developing depression, compared with the general population. In addition, individuals with depression may be at greater risk for developing diabetes and those with diabetes who have a history of depression may be more likely to develop diabetic complications than those without depression. Furthermore, several studies suggest that diabetes doubles the risk of depression compared to those without the disorder, and the chances of becoming depressed increases as diabetes complications worsen. Causes underlying the association between depression and diabetes remain unclear; depression may develop because of stress but also may result from the metabolic effects of diabetes on the brain. Treatment for depression with psychotherapy, medication, or a combination of these treatments helps in the management of symptoms of both diseases, thus improving a patient's well-being and ability to manage diabetes. This talk will cover the somatic associations between diabetes and depression, and their impact on quality of life.

#### **No. 16C POST-STROKE DEPRESSION AND THE VASCULAR DEPRESSION HYPOTHESIS**

David C. Steffens, M.D. *Duke University Medical Center, Department of Psychiatry and Medicine, Duke University Medical Center, Box 3903, Durham, NC, 27710*

#### **SUMMARY:**

Stroke is the third leading cause of death in the US. In addition, of all medical disease states, stroke and depression show among the highest comorbidity rates. Patients who suffer from the metabolic syndrome face nearly double the risk of having a stroke that is accompanied by depression. Appropriate diagnosis and treatment of depression may bring substantial benefits to persons recovering from a stroke by improving their medical status, enhancing their quality of life, and reducing their pain and disability. Treatment for depression also can shorten the rehabilitation process, lead to more rapid recovery and resumption of routine, and save health care costs. Of the 700,000 American men and women who experience a first or recurrent stroke each year, an estimated 10 to 27 percent experience major depression. An additional 15 to 40 percent experience some symptoms of depression within 2 months following a stroke. Post-stroke patients who are also depressed, particularly those with major depressive disorder, are less compliant with rehabilitation, more irritable and demanding, and may experience personality change. This talk will highlight the intimate relationship between stroke and the ensuing development of depression. Post-stroke depression will be discussed in the context of the Vascular Depression hypothesis, which relates cerebrovascular disease to development of depression in late life.

#### **No. 16D VASCULAR DISEASE AND DEPRESSION: CHALLENGES IN MANAGEMENT AND TREATMENT**

Christopher M. O'Connor, M.D. *Duke University Medical Center, Department of Cardiology, P.O. Box 3356, Durham, NC, 27710*

**SUMMARY:**

Multiple studies have reported a rate of 20 to 25% of major depression in Post-MI patients and a significant rate of affective symptoms that do not meet criteria for major depression. Additionally, new studies report that approximately 33% of patients develop a major depression at sometime during the year following an MI. Depression significantly increases mortality in the first year post-MI and the risk of mortality increases proportionately to the severity of the depressive symptoms. The questions are whether treatment of depression can reduce cardiovascular mortality and if so what are the mechanisms that mediate this result? This presentation will review in depth the results of the SADHART study comparing sertraline to placebo in post-MI patients and the ENRICHED study comparing cognitive behavioral therapy to treatment as usual in patients with depression or low social support post-MI. The current plans for new treatment studies in post-MI patients will be reviewed.

No. 16E

**CLINICAL TREATMENT PERSPECTIVES: A FOCUS ON DIAGNOSIS AND SAFETY**

J. Craig Nelson, M.D. *University of California San Francisco, Department of Psychiatry, 401 Parnassus Avenue, San Francisco, CA, 94143*

**SUMMARY:**

This presentation will summarize the relationships between depression, vascular disease and metabolic abnormalities with regard to the diagnosis and treatment of depression. The symptoms associated with comorbid vascular and metabolic diseases can obscure the diagnosis of depression and present a difficult diagnostic challenge for clinicians. This talk will highlight assessment and diagnostic strategies for this patient population. This patient group also presents unusual challenges in terms of safety issues. Concurrent medical illness may render the patient more vulnerable to adverse effects of medications. This patient group is much more likely to be receiving a variety of other medications which increases the risk of drug interactions. This presentation will review these issues and consider suggestions for medication management that takes these concerns into account.

**REFERENCES:**

1. Musselman DL, Evans DL, Nemeroff CB: The relationship of depression to cardiovascular disease: epidemiology, biology, and treatment. *Arch Gen Psychiatry.* 1998; 55:580-592.
2. Mathew SJ, Coplan JD, Schoepp DD, Smith EL, Rosenblum LA, Gorman JM. Glutamate-hypothalamic-pituitary-adrenal axis interactions: implications for mood and anxiety disorders. *CNS Spectrums* 2001; 6:561-564.
3. Jiang W, Kuchibhatla M, Cuffe MS, Christopher EJ, Alexander JD, Clary GL, Blazing MA, Gaulden LH, Califf RM, Krishnan RR, O'Connor CM: Prognostic value of anxiety and depression in patients with chronic heart failure. *Circulation* 2004; 110: 3452-3456.
4. Roose SP: Treatment of depression in patients with heart disease. *Biol Psychiatry.* 2003; 54: 262-268.
5. Nelson JC, Mazure CM, Jatlow PI, Bowers MB Jr, Price LH: Combining norepinephrine and serotonin reuptake inhibition mechanisms for treatment of depression: a double-blind, randomized study. *Biol Psychiatry* 2004; 55: 296-300.

## INDUSTRY-SUPPORTED SYMPOSIUM 17—THE LONG-TERM CLINICAL COURSE AND TREATMENT OF RECURRENT MAJOR DEPRESSION IN 2006: NEW DATA AND FUTURE DIRECTIONS

Supported by Wyeth Pharmaceuticals

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to

- summarize current insights into the naturalistic course of depression, as informed by several long-term naturalistic observational studies
- integrate insights from research in neurobiology, neuroimaging and genomics with new epidemiologic perspectives on the pathophysiology of depression
- discuss current treatment strategies and candidates for future treatments as informed by these epidemiologic and other research findings

No. 17A

**THE PERNICIOUS COURSE OF MAJOR DEPRESSION: NEW FINDINGS FROM A 20-YEAR PROSPECTIVE FOLLOW-UP STUDY**

Martin B. Keller, M.D. *Brown University, Department of Psychiatry and Human Behavior, 345 Blackstone Blvd, Butler Hospital, Providence, RI, 02912*

**SUMMARY:**

Long term, large-scale, short interval, prospective naturalistic observational studies are providing new insights into the clinical course of depression. Studies such as the nimh psychobiology of depression study and the work of Jules Angst have helped to map a comprehensive pattern of the lifelong course of depressive disorders. They are far more chronic recurrent impairing and associated with other psychiatric and non-psychiatric medical illnesses than has been previously believed. There is also a high rate of subsyndromal symptoms and impairment following recovery with a low proportion of depressed people actually having a full remission.

In addition, great strides have been made in our understanding of the pathophysiology of depression through the perspectives of learning, genomics, neurobiology and neuroimaging. This symposium will discuss how to integrate the insights from these disciplines into a more global and cohesive understanding of the nature and course of depression. From this platform, we are in a now in a position to begin to compare the range of evidence based psychosocial and pharmacologic treatment options, and to utilize human genetics and neuroimaging to identify the best candidates for new therapeutic strategies.

No. 17B

**RISK FOR MAJOR DEPRESSION: GENES, STRESS, AND THE HPA AXIS**

Audrey R. Tyrka, M.D. *Brown University, Psychiatry Department, 345 Blackstone Boulevard, Providence, RI, 02906-2720*

**SUMMARY:**

Knowledge of the clinical course of major depression is essential to patients, families, and clinicians seeking to make informed treatment decisions. In addition, information about the phenomenology and long-term trajectories for major depression will help guide efforts at elucidating the etiology of this complex disorder. Prospective

longitudinal studies with frequent follow-up intervals across the life-span are necessary to obtain accurate information on the course and consequences of affective disorders. The few existing prospective studies of the naturalistic course of this disorder have provided a wealth of information regarding the clinical characteristics, course and comorbidity in major depression. This work has also identified factors involved in recovery, relapse and recurrence, and chronicity. Predictors of suicide attempts, suicide, and cardiovascular outcomes have also been identified. Additional data on the clinical course and outcomes of depression and comorbid conditions continue to be collected. Insights that continue to evolve include increased appreciation and understanding of the interplay between affective disorders and aging; the correlations between various forms of depression with morbidity, mortality, and suicide; increased documentation and understanding of treatment as a mediating variable of outcome; and increasingly well-defined patterns of the course of subsyndromal affective symptoms.

#### No. 17C BIOLOGICAL AND IMAGING CHANGES IN DEPRESSION

K. Ranga R. Krishnan, M.D. *Duke University Medical Center, Department of Psychiatry, box 3950 duke university medical center, Durham, NC, 27710*

##### SUMMARY:

The neuroanatomical substrates of depression are better identified at this time. The key regions of the brain implicated include amygdala, orbital frontal cortex, subgenual prefrontal cortex, dorsolateral frontal cortex and the striatum. Evidence will be presented for each of these regions. Also we will show the relationship between elements of these structures and treatment response. A variety of technologies and how they are used to assess these structures and the link between genotype, the cognitive circuits and depression will be developed. For eg: Microstructural changes in the white matter of the right superior frontal gyrus are associated with late-life depression. Depressive patients had reduced volume in the total orbital frontal cortex, right orbital frontal cortex, and left orbital frontal cortex. The interaction between diagnosis of depression and 5-HTTLPR genotype was statistically significant for the right hippocampus ( $P = .04$ ). Subjects with late-onset depression who were homozygous for the long (L) allele (L/L genotype) had significantly smaller right hippocampal volumes than did L/L subjects with early-onset depression ( $P = .046$ ) or L/L control subjects ( $P = .01$ ). Post hoc analyses showed that later age of depression onset was associated with smaller hippocampal volumes in subjects with the L/L genotype, but earlier age of onset was associated with smaller hippocampal volumes in subjects who were homozygous for the short (S) allele (S/S genotype).

#### No. 17D USING PHARMACOGENETICS IN PRACTICE

Alan F. Schatzberg, M.D. *Stanford University, Department of Psychiatry & Behavioral Sciences, 401 Quarry Road, Dept. of Psychiatry & Behavioral Sciences/Stanford, Stanford, CA, 94305-5717*

##### SUMMARY:

Recently there have been a number of reports that pharmacogenetics may be helpful for predicting antidepressant response. These studies point to two primary uses: predicting the risk on intolerance due to side effects with specific drugs or the likelihood of demonstrating an antidepressant response. We review recent data from our group and others.

Several of the single nucleotide polymorphisms studied are associated with genes for the transporter of serotonin (5HT) or specific

5HT receptors. For example, the group in Milan initially reported that homozygotes for short forms of the promoter for the 5HT transporter were associated with poor responses to SSRI's. In contrast, 1/l or l/s subjects responded well. We present data from a 250-plus patient study comparing paroxetine with mirtazapine in geriatric depression that point to s/s homozygotes being intolerant to paroxetine, but not mirtazapine, treatment. Previous studies may have confused the 2 phenomena by using Last Observation Carried Forward methods. In our hands, C/C homozygotes for the 102 T/C SNP for the 5HT2a receptor were intolerant to treatment with paroxetine but not to the 5HT2a antagonist, mirtazapine. This SNP is independent of the serotonin promoter. Taken together the 2 account for some 85% of the intolerance to paroxetine.

In this presentation, we will present data on 2 genes or SNP's that predict antidepressant response to specific agents. APOE-4 has been associated with an increased risk for Alzheimer's disease in subjects with 2 E-4 alleles. In our hands, one E-4 allele predicted rapid response to mirtazapine. Possible mechanisms are discussed. Last, medication resistant P-glycoprotein or mr-P-GP or MDR-1 is an efflux pump for drugs out of cells including brain. Paroxetine is transported by the pump and is an antagonist of it as well. SNP's for MDR-1 predict response to paroxetine. Clinical implications of these data are emphasized.

#### No. 17E CURRENT STATE OF EVIDENCE-BASED TREATMENT OF DEPRESSION

Madhukar H. Trivedi, M.D. *University of Texas Southwestern Medical Center, Mood Disorders Research Program and Clinic, 5323 Harry Hines Blvd, Dallas, TX, 75390-9119*

##### SUMMARY:

In recent years, a critical mass of scientific evidence has formed a foundation for evidence-based guidelines for the treatment of depression. The Texas Medication Algorithm Project (TMAP) and the NIMH Funded Sequenced Alternatives to Relieve Depression (STAR\*D) are examples of successful algorithm-based disease management programs for the treatment of depression. Clinical outcomes for patients with major depressive disorder (MDD) during the 12 months of algorithm-guided treatment (ALGO) were compared with treatment-as-usual (TAU). ALGO included specific recommendations for treatment, the regular evaluation of symptoms and side effects at each clinic visit, expert consultations, and a patient/family education program. The ALGO intervention model based on Hierarchical linear models was superior to TAU for patients with MDD, based on clinician-rated and self-reported symptoms, and overall mental functioning. These successful and practical clinical experiences form the foundation for a review of current treatment strategies and their implications for future candidates for management of depression, as informed by new understandings in the epidemiology and neurobiology of depression.

##### REFERENCES:

1. Solomon DA, Keller MB, Leon AC, Mueller TI, Lavori PW, Shea MT, Coryell W, Warshaw M, Turvey C, Maser JD, Endicott J: Multiple recurrences of major depressive disorder. *Am J Psychiatry* 2000;157:229-33.
2. Murphy, G.M., et al. (2004). "Effects of the serotonin transporter gene promoter polymorphism on mirtazapine and paroxetine efficacy and adverse events in geriatric major depression." *Arch Gen Psychiatry* 61 (11): 1163-9.
3. Krishnan KR, Taylor WD, McQuoid DR, MacFall JR, Payne ME, Provenzale JM, Steffens DC. Related Articles, Links.
4. Trivedi, M.H., Rush, A.J., Crismon, M.L., et al. Clinical results for patients with major depressive disorder in the Texas Medica-

tion Algorithm Project. *Archives of General Psychiatry*, 2004;61(7):669-680.

## INDUSTRY-SUPPORTED SYMPOSIUM 18—MISDIAGNOSIS OF BIPOLAR II: METHODS FOR SCREENING PATIENTS AT RISK FOR BIPOLAR DISORDER Supported by GlaxoSmithKline

### EDUCATIONAL OBJECTIVES:

Upon completion of this presentation, the participant should be able to recognize and describe:

Depressive features in unipolar patients suggestive of a bipolar diathesis.

Highly recurrent Unipolar depression.

Depressive mixed states.

The Affective spectrum and how it differs from the Bipolar spectrum.

Treatment strategies for depression in the Bipolar spectrum.

### No. 18A DIAGNOSING BIPOLAR DISORDER AND THE ROLE OF SCREENING INSTRUMENTS

Terence A. Ketter, M.D. *Department of Psychiatry and Behavioral Sciences, PBS 2200, Stanford, CA, 94305*

#### SUMMARY:

Reaching an accurate diagnosis of bipolar disorder (BD) is challenging, with patients commonly waiting as long as 10 years and seeing several physicians before receiving the correct diagnosis and appropriate treatment. Barriers to accurate diagnosis include the diverse initial clinical presentations. Initial mood problems can be depressive and mixed episodes, so that up to 50% of patients may be improperly diagnosed with unipolar major depressive disorder. In addition, mild mood elevation (hypomania) may not be detected (especially if a family member is not part of the evaluation) since it can be accompanied by preserved or even enhanced function. Moreover, disruptive behavioral, anxiety, substance abuse, and eating disorder symptoms can precede syndromal mood problems. Misdiagnosis may not only delay appropriate treatment, but even result in interventions such as unopposed (without mood stabilizer protection) antidepressants and/or stimulants that can exacerbate BD illness course. Use of screening instruments such as the Mood Disorders Questionnaire can enhance detection of cross-sectional symptoms of BD. Additional evaluation with instruments such as the Bipolarity Index can detect features of longitudinal course of symptoms, onset age, family history, and treatment responses, suggestive of BD. Although diagnosing BD can be challenging, screening patients can help avoid iatrogenic illness exacerbation and facilitate entering the pathway to successful management.

### No. 18B MAJOR DEPRESSION: CLUES TO BIPOLARITY

Hagop S. Akiskal, M.D. *University of California at San Diego, Dept of Psychiatry and Director International Mood Center, 3350 La Jolla Village Dr., 116-A, San Diego, CA, 92161*

#### SUMMARY:

It was once believed that the depressive phase of bipolar disorder is psychomotor inhibited. Current research is painting a different picture, in part because comparisons now are between BP-I, BP-II

and UP. The phenomenology of BP-I depression ranges from stupor to agitated psychosis, whereas UP depression expresses itself in psychic anxiety, guilt and insomnia, as well as retardation. Features external to the phenomenology such as early age at onset, high depressive recurrence, seasonality, cyclicity, switching on antidepressants, postpartum onset, bipolar (often "loaded") family history, hyperthymic and cyclothymic temperaments are other ways to distinguish BP from UP depression. When one specifically compares BP-II with UP, it has more atypical features, mood lability, hostility, activation, multiple anxiety comorbidities, suicidal tendencies, and to be rated as less "objectively" depressed. The inconsistency between the conventional and the phenomenology described herein is largely due to depressive mixed states, which tend to destabilize BP-II, and may account for the "contradictory" relationships of affect, sleep, drive, and psychomotor activity in mood disorders. Bipolar patients also engage in a host of activities, such that their biography is full of "excesses" of every kind (e.g., multiple marriages and professions, flamboyance, as well as multiple drug and impulse disorders).

### No. 18C BIPOLAR DEPRESSION: IMPLICATIONS FOR MORBIDITY, MORTALITY, AND THERAPEUTICS

Ross J. Baldessarini, M.D. *McLean Hospital, Mailman Research Center, 115 Mill Street, Belmont, MA, 02478-1906*

#### SUMMARY:

Distinguishing bipolar and unipolar forms of recurring mood disorders has been debated since Kraepelin lumped both into his *manic-depressive* concept. A distinction between bipolar (BPD) and unipolar recurrent depressive disorders became widely accepted by the 1950s, based on observations of family history and illness-course, and were further encouraged by broad acceptance of lithium and antidepressant drugs in the 1960s. A widening range of treatments found effective in long-term treatment of BPD-I now encourages further interest in the treatment of BPD conditions including BPD-II, cyclothymia, BPD-NOS, and proposed "BP-spectrum" disorders. In general, depressive phases of BPD, by far, remain least well controlled by modern treatments, and contribute greatly to comorbidity, disability, and mortality. BPD-II is a particularly compelling, distinct, and prevalent entity, often confused with unipolar depression, with high risks of recurrence, disability, and very high suicide rates; it is not a milder form of BPD-I. A specific therapeutics of BPD-II remains to be clarified, including relative benefits and risks of antidepressants, mood-stabilizers, or their combinations. Responses to lithium may be as strong in BPD-II as in BPD-I, and antidepressants better tolerated, whereas controlled trials and comparisons of modern treatments for non-type-I BPD remain rare.

### No. 18D ANTIDEPRESSANTS AND THE BIPOLAR SPECTRUM

S. Nassir Ghaemi, M.D. *Emory University, Psychiatry, The Emory Clinic, 1365 Clifton Road, Building B, Suite 6100, Atlanta, GA, 30322*

#### SUMMARY:

The concept of the bipolar spectrum matters practically in relation to whether and how to use antidepressants. In the bipolar spectrum, the literature provides little evidence of acute efficacy, and almost no evidence of long-term benefit. Acute manic switch appears less frequent in type II bipolar illness (5-10%) than type I illness (10-20%), but more frequent than in unipolar depression (0-5%). Long-term mood destabilization, or development of rapid-cycling, may

also occur in type II illness, though perhaps less frequently than type I illness.

Tolerance (or long-term loss of response) to antidepressants occurred in about 60% of bipolar patients, compared to 20% with unipolar depression.

Further, some patients with treatment resistant depression may be best conceptualized as having a variety of the bipolar spectrum; one such subtype, which we have called "bipolar spectrum disorder", may comprise all non-unipolar and non-type I and non-type II bipolar conditions. This condition may be identified by depressive features (e.g., atypical, psychotic, early onset, high recurrence rate), family history (of bipolar disorder), or antidepressant treatment response (manic switch, tolerance, rapid-cycling). If these bipolar spectrum concepts are validated, new insights may be achieved in diagnosing and treating many patients with heretofore refractory depression.

#### No. 18E

### DEPRESSION AND THE AFFECTIVE SPECTRUM: THE ROLE OF MOOD STABILIZERS

Frederick K. Goodwin, M.D. *George Washington University, Psychiatry, 7500 Old Georgetown Rd., Suite 601, Bethesda, MD, 20814*

#### SUMMARY:

While all drugs in the marketplace for the treatment of bipolar disorder (except one) have been introduced as antimanic agents, depression represents the bulk of the morbidity across the bipolar spectrum.

The early NIMH controlled studies of lithium as an antidepressant (Goodwin et al 1969, 1972) noted acute efficacy in both bipolar depression and "cyclic" unipolar depression; and subsequent European one year maintenance studies found lithium to be superior to placebo and to imipramine in prevention of re-hospitalizations for depression in both bipolar and highly recurrent unipolar patients.

What about the newer mood stabilizer candidates? We will review data on both the acute antidepressant efficacy and maintenance efficacy against depression of the anticonvulsants carbamazepine, divalproex and lamotrigine, as well as the atypical antipsychotics aripiprazole and quetiapine.

While all of these contemporary studies have focused on bipolar depression, we will suggest that all of these agents should also be evaluated in patients in early onset, highly recurrent unipolar depression - a group that is genetically related to bipolar disorder.

#### REFERENCES:

1. Das AK, Olfson M, Gameroff MJ, Pilowsky DJ, Blanco C, Feder A, Gross R.
2. Ghaemi N, Ko JY, Goodwin FK. "Cade's disease" and beyond: misdiagnosis, antidepressant use, and a proposed definition for bipolar spectrum disorder.
3. Akiskal HS: The dark side of bipolarity: Detecting bipolar depression in its pleomorphic expressions. *J Affect Disord* 84:107-115, 2005.
4. Baldessarini RJ: A plea for integrity of the bipolar disorder.
5. Goodwin FK: Rationale for using lithium in combination with other mood.

### INDUSTRY-SUPPORTED SYMPOSIUM 19—ADVANCES IN THE UNDERSTANDING OF THE DEMENTIA SPECTRUM Supported by Eisai, Inc. and Pfizer, Inc.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this program, participants should be able to:  
Describe the neurobiological foundations of dementia;

Discuss strategies for identifying and treating vascular dementia;  
Discuss the differences between predementia and dementia states, including MCI and advanced Alzheimer's disease;

Review the treatment strategies for patients with advanced dementia;

Identify strategies for optimizing behavioral outcomes in patients with dementia.

#### No. 19A

### THE NEUROBIOLOGY OF ALZHEIMER'S DISEASE

David A. Bennett, M.D. *Rush Alzheimer's Disease Center, Rush University Medical Center, 600 S. Paulina, Suite 1028, Chicago, IL, 60612*

#### SUMMARY:

This presentation will focus on the neurobiological characteristics that differentiate normal aging from AD and mild cognitive impairment (MCI). It will review how the three most common changes in the brain that contribute to dementia (amyloid deposition, neurofibrillary tangle formation, and cerebral infarcts) are related to each other and to the development of AD.

Amyloid-beta peptide plaques and hyperphosphorylated paired helical filament tau protein-rich neurofibrillary tangles are the principal pathologic lesions of AD. Determining the relationship of these two pathologies and their relationship to the clinical manifestations of AD has implications for treatment strategies and the ultimate prevention of AD. Studies suggest that neurofibrillary tangles correlate better with the presence and severity of dementia. However, recent preclinical and clinical-pathologic studies suggests that amyloid deposition and tangle formation may be part of a sequence of pathologic events leading to the development of clinical Alzheimer's disease.

Stroke is generally considered to be the second most common cause of dementia. The extent to which cerebral infarctions increase the likelihood that AD pathology is manifest clinically as dementia has been a matter of debate. Recent data suggest that although cerebral infarctions are not directly in the AD process, by impairing cognitive function, they lower the threshold for dementia, which actually makes clinical AD evident with lower levels of AD pathology.

Finally, clinical AD is thought to develop slowly over many years. The term MCI is increasingly being used to refer to persons with mild cognitive impairment who do meet criteria for dementia. The extent to which this represents a normal process of aging or the early signs of pathology has been highly controversial. Recent data suggests that persons with MCI are at greater risk of clinical AD and cognitive decline compared to persons without cognitive impairment. Further, MCI appears to be due to AD pathology, cerebral infarctions, or a combination of both, rather than being a benign aging process.

#### No. 19B

### THERAPEUTIC OPTIONS IN THE MANAGEMENT OF VASCULAR DEMENTIA

David Wilkinson, M.B. *Moorgreen Hospital, MARC, MARC, Moorgreen Hospital, Southampton, SO30 3JB, United Kingdom*

#### SUMMARY:

Vascular dementia (VaD) is a major and increasingly prevalent health problem, which is often goes unrecognized. Patients at risk of developing VaD include those with vascular conditions; as yet with no approved treatments for VaD, those patients who receive a diagnosis of VaD are treated by managing their cardiovascular risk factors.

Differentiation from Alzheimer's disease (AD) is made on clinical and radiological evidence, as symptoms typically emerge in proximity to a vascular event (stroke). Vascular dementia may be recognized by its characteristic symptom profile, particularly impairment in executive function, although impaired cognition is also observed in VaD patients.

The importance of diagnosing and treating VaD is emphasized by the increased mortality risk in poststroke dementia patients and by the more rapid progression of dementia in VaD patients with comorbid AD. Currently treatment is aimed at optimizing risk factors and offering symptomatic treatment with cholinesterase inhibitors. Data from recent trials will be reviewed alongside and new data from recently completed studies.

### No. 19C EVOLUTION IN THE UNDERSTANDING AND TREATMENT OF MILD COGNITIVE IMPAIRMENT

Gregory A. Jicha, M.D. *Mayo Clinic, Neurology, 800 South Limestone, Sanders-Brown, Room 223, Lexington, KY, 40536*

#### SUMMARY:

Mild cognitive impairment (MCI), particularly the amnesic form, is characterized by consistent short-term memory impairment and is regarded as a transitional stage of normal aging and early Alzheimer's disease (AD). This clinical transitional stage is the slow unfolding of neuropathology over the course of years. The clinical criteria for MCI include memory complaint by the patient and/or family member, objective evidence of memory impairment, normal general cognitive functioning, and preserved or only minimally impaired activities of daily living.

Individuals with MCI are at an increased risk for developing AD. Because of this risk, there is a growing interest in evaluating and monitoring these individuals and developing therapeutic treatments and interventions. Ongoing intervention trials are being developed to test various agents that delay the rate of progression of MCI to AD. New diagnostic techniques may also provide improved identification of patients who have MCI that may evolve into AD. This presentation will review our understanding of the evolution of MCI as described above and will explore emerging therapeutic treatment options.

### No. 19D IMPROVING OUTCOMES FOR PATIENTS WITH ADVANCED DEMENTIA

Howard Feldman, M.D. *University of British Columbia Hospital, Department of Neurology, S192-2211 Wesbrook Mall, UBC Hospital, Vancouver, BC, V6T 2B5, Canada*

#### SUMMARY:

Patients with mild to moderate Alzheimer's disease (AD) experience annual rates of decline in cognition and daily function that can be reasonably predicted. However during the transition to moderate to severe Alzheimer's disease (MSAD), cognitive losses accelerate, neuropsychiatric symptoms accelerate, and the declines in instrumental activities of daily living (ADL) are superseded by basic ADL deficits. Formal care needs arise and add to informal care costs. A range of instruments has been developed to comprehensively capture MSAD symptoms that have improved our understanding of the phenomenology of MSAD.

In this presentation, staging instruments, natural history, and methods for the evaluation and treatment of moderate to severe AD will be discussed. The current best evidence for the use of acetylcholinesterase inhibitors and memantine in MSAD will be reviewed with focus on their impact on neuropsychiatric symptoms and functional

disability. Additionally some consideration of the impact on costs of care will be provided.

### No. 19E OPTIMIZING BEHAVIORAL OUTCOMES ACROSS THE DEMENTIA SPECTRUM

Jeffrey L. Cummings, M.D. *UCLA Alzheimer's Disease Center, Department of Neurology, 710 Westwood Plaza, Suite 2238, Los Angeles, CA, 90095*

#### SUMMARY:

Optimizing Behavioral Outcomes Across the Dementia Spectrum  
Data suggest that up to 90% of patients with dementia will develop behavioral signs and symptoms at some time in the course of illness. Behavioral disturbances are particularly problematic for both patient and caregiver and include personality changes, agitation, physical combativeness, socially inappropriate behaviors, mood disturbances, and psychotic symptoms.

Treatment with cholinesterase inhibitors has been shown to reduce behavioral symptoms that have manifested in patients with mild-to-moderate Alzheimer's disease (AD). A recent study has demonstrated that cholinesterase inhibitors delayed emergence of new behavioral symptoms in patients with AD who were lacking symptoms at the time of treatment initiation. These behavioral outcomes were associated with a significant reduction in caregiver distress, an important contributor to the need for institutionalization of patients with dementia.

Cholinesterase inhibitors may assist in the management of other disorders with cholinergic system abnormalities and neuropsychiatric symptoms. The beneficial response is most likely mediated through limbic cholinergic structures. NMDA receptor blockade also has been shown to benefit behavioral changes. The data indicate that treatment with antidementia agents can have beneficial effects on behavioral outcomes, as well as cognition and daily functioning.

#### REFERENCES:

1. Bennett DA, Schneider JA, Bienias JL, Evans DA, Wilson RS: Mild cognitive impairment is related to Alzheimer disease pathology and cerebral infarctions. *Neurology* 2005; 64:834-841.
2. Wilkinson D, Doody R, Helme R, Taubman K, Mintzer J, Kertesz A, Pratt R. Donepezil in vascular dementia: a randomized, placebo-controlled study. *Neurology* 2003;61:479-486.
3. Petersen RC: Mild cognitive impairment clinical trials. *Nat Rev Drug Discov* 2003; 2:646-653.
4. Feldman HH, Van Baelen B, Kavanagh SM, Torfs KE: Cognition, function, and caregiving patterns in patients with mild-to-moderate Alzheimer disease: a 12-month analysis. *Alzheimer Dis Assoc Disord* 2005; 19:29-36.
5. Tractenberg RE, Weiner MF, Cummings JL, Patterson MB, Thal LJ: Independence of changes in behavior from cognition and function in community-dwelling persons with Alzheimer's disease: a factor analytic approach. *J Neuropsychiatry Clin Neurosci* 2005; 1.



SUNDAY, MAY 21, 2006

**INDUSTRY-SUPPORTED SYMPOSIUM  
20—ALZHEIMER'S DISEASE:  
CHALLENGING THE PRACTICE  
PARADIGM  
Supported by Forest Pharmaceuticals,  
Inc.**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium, the participant should be able to:

1. Understand variability in the patient population that presents for Alzheimer's Disease and formulate appropriate management plans based on individual patient needs and/or medical concerns.
2. Comprehend the rationale and critically evaluate clinical safety and efficacy of current therapeutic approaches in treatment-naïve and treatment-experienced patients.
3. Discuss the impact of neuropsychiatric symptoms in Alzheimer's Disease, outline safety issues associated with use of psychotropics in the elderly, and delineate efficacy of current Alzheimer's Disease therapies in reducing the severity of behavioral symptoms.

**No. 20A  
VARIABILITY IN THE CLINICAL PRESENTATION  
OF ALZHEIMER'S DISEASE**

M. Saleem Ismail, M.D. *University of Rochester, Psychiatry, 435 East Henrietta Road, Program in Neurobehavioral Therapeutics, Rochester, NY, 14620*

**SUMMARY:**

Alzheimer's disease (AD) is a complex and heterogeneous disorder. Patients can present at all stages of the disease and may represent a fairly wide range of ages. In fact, AD is often divided into early- and late-onset forms. Familial early-onset AD, which accounts for approximately 5% of all AD cases, results from an autosomal dominant inheritance pattern and often follows a more aggressive disease course. Late-onset AD, which represents the majority of all cases, is likely governed by susceptibility genes that increase disease risk and/or lower onset age (eg, *APOE*). It is important to realize that a patient presenting with late-onset AD will likely differ markedly from an early-onset patient both from a medical (eg, comorbidities, polypharmacy issues, rate of disease progression) and social (eg, financial status, support structure) perspective. Thus, it is important to delineate differences among patients to ensure early diagnosis and appropriate treatment and care. This talk will outline the importance of recognizing variability in the patient population that presents for Alzheimer's disease to ensure that management plans are formulated based on individual patient needs and/or medical concerns.

**REFERENCES:**

1. Bertram L, Tanzi RE. Of replication and refutations: the status of Alzheimer's disease genetic research. *Curr Neurol Neurosci Rep.* 2001;1:442-450.
2. Schindler RJ, Cucio CP. Late-life dementia. Review of the APA guidelines for patient management. *Geriatrics.* 2000;55:55-60.
3. Rabins PV. Alzheimer's disease management. *J Clin Psychiatry.* 1998;59(suppl 13):36-38.

**No. 20B  
TREATMENT INITIATION IN ALZHEIMER'S  
DISEASE**

Pierre N. Tariot, M.D. *University of Rochester Medical Center, Psychiatry, 435 East Henrietta Road, University of Rochester @MCH, Rochester, NY, 14620*

**SUMMARY:**

Current US Food and Drug Administration (FDA)- approved therapies for Alzheimer's disease (AD) are the cholinesterase inhibitors (ChEIs) and memantine, an NMDA *N*-methyl-D-aspartate- receptor antagonist, which were developed to compensate for deficits in cholinergic and glutamatergic neurotransmission, respectively. In addition, mounting evidence addresses the possible role of psychotropic medications for treating some aspects of AD, although their use is not FDA-approved. This presentation will outline both nonpharmacologic and pharmacologic approaches to the initial treatment of AD. Safety and efficacy of current FDA-approved monotherapy strategies, defined by benefits in cognition, function, and behavior, will be addressed. Factors contributing to choice of therapy at treatment initiation such as disease stage at time of diagnosis, medical and psychiatric comorbidities, and polypharmacy will be addressed. Open-label extension and delayed-start data from these clinical trials will be reviewed briefly, which tend to support early initiation of antidementia therapy. The presentation will use video case illustrations to focus on a pragmatic approach to optimizing therapeutic response by assessing individual patient needs, understanding dosing considerations, monitoring adverse events, and developing an awareness of appropriate drug-drug and drug-disease interactions.

**No. 20C  
INDIVIDUALIZING ALZHEIMER'S DISEASE  
THERAPY OVER THE DISEASE COURSE**

Constantine Lyketsos, M.D. *Johns Hopkins University School of Medicine, Department of Psychiatry, 550 North Broadway, Suite 308-Johns Hopkins Hospital, Baltimore, MD, 21205*

**SUMMARY:**

The cognitive, functional, and behavioral impairments associated with Alzheimer's disease (AD) pose significant challenges to providing optimal patient-focused care. In this presentation, active involvement of the psychiatrist in managing AD treatment over the course of the disease will be discussed. Beneficial outcomes can be achieved through the ongoing combined use of non-pharmacologic and pharmacologic interventions, which result in symptom relief, enhanced quality of life for both the patient and caregiver, and delayed nursing home placement. Following treatment initiation, issues with tolerability, compliance, comorbidities, or lack of therapeutic response may necessitate re-evaluation of pharmacologic interventions. Decision processes regarding switching therapies, adding a second class of drug for combination therapy, or discontinuing therapy should be evaluated on a case-by-case basis. These issues associated with individualizing AD therapy will be discussed during this presentation, aided by a case study to illustrate therapeutic benefit achieved over a several year period by this individualized approach. Overall, this presentation will focus on tailoring treatment decisions over the course of the disease to maximize response.

**No. 20D  
NEUROPSYCHIATRIC SYMPTOMS IN  
ALZHEIMER'S DISEASE: PREVENTING  
EMERGENCE AND DECREASING SEVERITY**

Jeffrey L. Cummings, M.D. *UCLA, Department of Neurology, 710 Westwood Plaza, Suite 2-238, Los Angeles, CA, 90095-1769*

**SUMMARY:**

Neuropsychiatric symptoms have been reported at all stages of Alzheimer's disease (AD) and even in a high proportion of individuals with mild cognitive impairment. Behavioral symptoms can diminish patient quality of life, increase caregiver distress, and accelerate nursing home placement. This presentation will provide an overview of behavioral and neuropsychiatric symptoms associated with AD and will address appropriate medical management of these patients. There are currently no US Food and Drug Administration-approved orally administered agents for behavioral disturbances in AD/dementia. Recently, public health advisories have been issued concerning higher rates of death due to cardiovascular events in demented elderly patients treated with antipsychotics, and there is a need for alternative interventions. Memantine and cholinesterase inhibitors improve behavior and reduce the emergence of new behavioral abnormalities. These agents have an important role in the behavioral management of patients with AD.

**REFERENCES:**

1. Bertram L, Tanzi RE. Of replication and refutations: the status of Alzheimer's disease genetic research. *Curr Neurol Neurosci Rep.* 2001;1:442-450.
2. Journal Article - Reisberg B, Doody R, Stöffler A, Schmitt F, Ferris S, Möbius HJ, for the Memantine Study Group. Memantine in moderate-to-severe Alzheimer's disease. *N Engl J Med.* 2003;348:1333-1341.
3. Rabins PV, Lyketsos CG, Steele CD. *Practical Dementia Care*, 2nd Edition. Oxford University Press: New York, 2006.
4. Cummings JL. *Neuropsychiatry of Alzheimer's Disease and Related Disorders*. Martin Dunitz, London, 2004.

**INDUSTRY-SUPPORTED SYMPOSIUM  
21—EFFECTIVENESS OF  
ANTIPSYCHOTIC DRUGS IN CHRONIC  
SCHIZOPHRENIA: COMPLETE RESULTS  
OF THE CATIE TRIAL  
Supported by Eli Lilly and Company**

**EDUCATIONAL OBJECTIVES:**

1. Identify the primary outcome measures used to measure safety and efficacy in the CATIE Trial
2. Evaluate the impact of antipsychotics on cognitive function in schizophrenia
3. Compare differences in the efficacy of antipsychotics in defined treatment intolerant patients
4. Differentiate antipsychotics in measures of health care utilization and cost effectiveness measures.

**No. 21A****COMPARISON OF THE PRIMARY OUTCOME MEASURES OF EFFICACY AND SAFETY**

Jeffrey A. Lieberman, M.D. *Columbia University Medical Center, Department of Psychiatry, 1051 Riverside Drive - Unit #4, New York, NY, 10032*

**SUMMARY:**

The National Institute of Mental Health initiated the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) to evaluate the safety and effectiveness of atypical antipsychotics, relative to each other, in patients with schizophrenia. Outcomes measures were designed to be reflective of real-world clinical situations and provide extensive information about the safety and effectiveness of antipsy-

chotics over an 18 month period. Time to all-cause treatment failure, marked by drug discontinuation, was the primary endpoint. Discontinuation was chosen as a primary endpoint because it is reflective of the efficacy and tolerability of an agent or the belief that a different antipsychotic would offer improvement in outcomes. This presentation will provide participants with insights into the efficacy and safety outcome measures implemented in the CATIE trial and the resulting comparative data for atypical antipsychotics that emerged.

**No. 21B****COMPARISON OF CLOZAPINE VERSUS OTHER ATYPICAL DRUGS IN PROSPECTIVELY DEFINED, UNRESPONSIVE PATIENTS**

Joseph P. McEvoy, M.D. *Duke University School of Medicine, Department of Psychiatry, 1003 12th St., JUH, Butner, NC, 27509*

**SUMMARY:**

Patients who discontinued treatment in phase 1 of the CATIE schizophrenia trial had the option of selecting between two phase 2 trials. The phase 2 clozapine trial offered randomization to clozapine (50% likelihood) or to one of the newer atypical antipsychotics (olanzapine, quetiapine or risperidone) other than that which the patient received in phase 1 (50% likelihood). The specific aim of this trial was to determine, among patients who had failed treatment with one of the newer atypical antipsychotics, the long-term effectiveness and tolerability of switching to another of the newer antipsychotics, relative to switching to clozapine. If a patient was randomized to clozapine, the treatment was open-label. If a patient was randomized to one of the newer atypical antipsychotics, the treatment was double-blind. 90 patients participated in this trial, 45 were assigned to clozapine, and 45 assigned to one of the newer atypical antipsychotics (17 to olanzapine, 14 to quetiapine, and 14 to risperidone). Multiple outcome measures addressing therapeutic effectiveness and tolerability will be presented.

**No. 21C****COMPARISON OF ZIPRASIDONE VERSUS OTHER ATYPICAL DRUGS IN PROSPECTIVELY DEFINED, UNRESPONSIVE PATIENTS**

Thomas S. Stroup, M.D. *University of North Carolina at Chapel Hill, Psychiatry, CB# 7160, Chapel Hill, NC, 27599-7160*

**SUMMARY:**

The National Institute of Mental Health initiated the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) program to provide an independent evaluation of the relative effectiveness of antipsychotic drugs in "real-world" settings. The initial phase of the CATIE schizophrenia study evaluated the effectiveness of olanzapine, perphenazine, quetiapine, risperidone, and ziprasidone in almost 1500 individuals with chronic schizophrenia. Approximately 75 % of patients discontinued the first assigned drug before the planned 18 months of treatment were completed, due to inadequate efficacy, inadequate tolerability, or patient decision. This presentation will focus on individuals who discontinued the first drug due to poor tolerability, and who entered a second phase in which subjects were randomly assigned to ziprasidone or to another atypical drug not already taken in the study. Overall effectiveness and the effects of the switch on important metabolic parameters (weight, glucose and lipid metabolism) will be discussed.

No. 21D  
**COMPARISON OF TREATMENT EFFECTS ON  
 COGNITION**

Richard S.E. Keefe, Ph.D. *Duke University Medical Center, Department of Psychiatry, Box 3270, Durham, NC, 27710*

**SUMMARY:**

Neurocognition is moderately to severely impaired in patients with schizophrenia and is a core feature of the illness. Antipsychotic treatment studies have suggested that atypical antipsychotic medications may improve neurocognition in patients with schizophrenia. However, this conclusion is based upon previous trials that have been limited by small sample sizes or industry sponsorship. The CATIE (Clinical Antipsychotic Trials of Intervention Effectiveness) schizophrenia trial allows a comparison of the neurocognitive effects of olanzapine, perphenazine, quetiapine, risperidone, and ziprasidone in a large number of patients. An "all comer" sample of 1460 patients with chronic schizophrenia, including those with medical comorbidity and substance abuse were entered into the study from 57 sites; 1332 patients provided neurocognitive data adequate to create a composite score at baseline. 11 neurocognitive tests were administered, resulting in 24 individual scores reduced to nine neurocognitive outcome measures, five domain scores and a composite score. Despite minimal screening procedures, 91.2 % of patients provided meaningful neurocognitive data at baseline. Severity of the deficits was similar to estimates from meta-analyses. The neurocognitive effects of each of the antipsychotic treatments will be reported, including both within-group and between-group analyses.

No. 21E  
**COMPARISON OF TREATMENTS ON HEALTH  
 SERVICE UTILIZATION AND COST  
 EFFECTIVENESS MEASURES**

Robert A. Rosenheck, M.D. *Yale School of Medicine, NEPEC, 950 Campbell Avenue, West Haven, CT, 06516*

**SUMMARY:**

As part of the CATIE trial, detailed information on service utilization and nonhealth costs (incarceration, loss of employment) were obtained through monthly interviews with 1460 patients over an 18-month period. The cost of services used was estimated using unit costs from various administrative data sets and published cost estimates. Local costs were used whenever possible and when they were not available, adjustments were made for differences in wage rates. In addition to the standard CATIE outcome and side effect measures, health status, as measured in Quality Adjusted Life Years (QALYs) was assessed with the EuroQoL analog scale and with a recent algorithm that converts PANSS scores in to QALYS (Lenert et al., 2004). Intention-to-treat analysis of differences in costs and effectiveness across treatment groups will be presented.

**REFERENCES:**

1. Stroup TS, et al. The National Institute of Mental Health Clinical Antipsychotics Trials of Intervention Effectiveness (CATIE) project: schizophrenia trial design and protocol development. *Schizophr Bull.* 2003;29(1):15-31.
2. Stroup TS, et al. The National Institute of Mental Health Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) project: schizophrenia trial design and protocol development. *Schizophrenia Bulletin* 2003;29(1):15-31.
3. Consensus development conference on antipsychotic drugs and diabetes and obesity. *Diabetes Care* 2004;27:596-601.
4. Harvey PD, Keefe RSE. Studies of cognitive change with treatment in schizophrenia *Am J Psychiatry* 2001;158:176-184.

5. Gold MR, Siegel JE, Russell LB and Weinstein MC. 1996. *Cost Effectiveness in Health and Medicine.* Oxford University Press, New York, NY.

**INDUSTRY-SUPPORTED SYMPOSIUM  
 22—PSEUDOBLBAR AFFECT: A  
 COMMON SYNDROME THAT IS  
 UNDERRECOGNIZED, MISDIAGNOSED,  
 AND UNDERTREATED**  
**Supported by Avanir Pharmaceuticals**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to:

- State current clinical criteria for PBA in a practice setting
- Distinguish PBA from disorders of mood and other disorders of affect
- Identify two important neural networks which contribute to the expression of PBA when damaged
- Carry out two drug treatments for PBA

No. 22A  
**THE DIFFERENTIAL DIAGNOSIS OF  
 PSEUDOBLBAR AFFECT**

David B. Arciniegas, M.D. *University of Colorado School of Medicine, Departments of Psychiatry and Neurology, Campus Box C268-25, 4200 East Ninth Avenue, Denver, CO, 80262*

**SUMMARY:**

When the ability to regulate emotion is compromised by disease or injury, the impact is substantial for patients, their families, and society. Emotion is often divided clinically into two domains, mood and affect, with the former denoting a subjective emotional state and the latter denoting the observable expression of emotion. Although use of these terms in this fashion is often sufficient for the diagnosis and treatment of mood disorders, it is severely limited as an approach to the diagnosis and treatment of disorders of affect. This lecture will present a heuristic in which mood and affect are defined on temporal grounds first, and are then described further according to their objective and subjective characteristics. Thereafter, the differential diagnosis of disorders of affect is presented, including pathological laughing and crying, affective lability, essential crying, *witzelsucht*, and affective placidity. The syndrome of pseudobulbar affect is also described in this context. The neuroanatomy and treatment of disorders of affect are considered in the subsequent lectures in this symposium.

No. 22B  
**THE PATHOPHYSIOLOGY OF PSEUDOBLBAR  
 AFFECT**

Edward C. Lauterbach, M.D. *Mercer University School of Medicine, Department of Psychiatry & Behavioral Sciences, 655 First Street, Department of Psychiatry & Behavioral Sciences, Macon, GA, 31201*

**SUMMARY:**

Pseudobulbar affect (PBA) is prevalent in a wide variety of neurodegenerative diseases including amyotrophic lateral sclerosis (ALS), multiple sclerosis (MS), dementias, stroke, and traumatic brain injury (TBI). Though the structural pathologies of these conditions vary widely, PBA occurs in each and is indistinguishable regardless of the disease process. This suggests a common emotional neurobiological

substrate for PBA, disrupted in the diseases in which PBA occurs. Wilson (Wilson SAK: *J Neurol Psychopathol* 1924;4:299-333) originally suggested that the expression of PBA resulted from a loss of cortical inhibition, producing disinhibition of a brainstem "faciorespiratory center" that coordinated emotional motor output. This partially-validated early conceptualization provided the foundation for updated models. PBA is associated with bilateral and unilateral lesions involving frontotemporal projections to the midbrain and pontine structures. Recently, Parvizi and colleagues (see reference) reported a case of PBA wherein lesions likely disrupted corticopontine input to the cerebellum, dysregulating cerebellar feedback to frontotemporal areas. Cerebello-frontotemporal projections include thalamic relays, and we previously documented a case of PBA after a pure thalamic lesion (*Neurology* 1994;44:983-984). Thus, PBA appears to result from disrupted emotional motor output control, developing after lesions of cortico-ponto-cerebello-thalamo-cortical circuits and their subsidiary connections.

#### No. 22C

### TREATMENT OPTIONS FOR PSEUDOBLBAR AFFECT

Michael C. Graves, M.D. *University of California - UCLA, Box 956975, Ste B200, 300 Medical Plaza, Los Angeles, CA, 90095*

#### SUMMARY:

Pseudobulbar affect can be a socially disabling symptom in organic neurological diseases such as amyotrophic lateral sclerosis (ALS) multiple sclerosis (MS), Parkinson's disease and others. Clinicians have generally treated patients with PBA using anti-depressant medications, while realizing that the syndrome is quite distinct from depression. A few observational and placebo-controlled studies support the use of antidepressants although there is no FDA recognized indication for any drug for PBA up to now. The serendipitous discovery by R.A. Smith that the combination of Dextromethorphan and quinidine (Neurodex) had a dramatic beneficial effect on the pathological crying and laughing of ALS patients suggested that this new treatment may benefit PBA of any cause. Prospective randomized, placebo-controlled studies have confirmed the initial clinical impression of efficacy in ALS and MS. The older off-label use of anti-depressant medications for PBA will probably continue to be appropriate in some patients, but Neurodex will provide a new and unique symptomatic treatment for PBA.

#### REFERENCES:

1. Arciniegas DB, Topkoff J: The neuropsychiatry of pathological affect: an approach to evaluation and treatment. *Semin Clin Neuropsychiatry* 2000; 5(4):290-306.
2. Parvizi J, et al: Pathological laughter and crying: a link to the cerebellum. *Brain* 2001;124:1708-1719.
3. Brooks BR, Thisted RA, Appel SH, Bradley WG, Olney RK, Berg JE, Pope, LE, Smith RA for the DM/Q ALS Study Group. Treatment of pseudobulbar affect in ALS with dextromethorphan/quinidine. *Neurology*. 2004;63:1364-1370.

## INDUSTRY-SUPPORTED SYMPOSIUM 23—ADVANCES IN THE NEUROBIOLOGY AND THERAPEUTICS OF ADHD Supported by Cephalon, Inc.

#### EDUCATIONAL OBJECTIVES:

To understand about new horizons in the neurobiology and psychopharmacology of ADHD

#### No. 23A

### SLEEP AND ADHD

Eric Mick, Sc.D. *Massachusetts General Hospital, Department of Psychiatry, 55 Fruit Street, Warren 705, Boston, MA, 02114*

#### SUMMARY:

**Background.** Although sleep difficulties are commonly reported in individuals with ADHD, their origins are poorly understood because of a relative lack of research. Recent research indicates that many of the sleep difficulties reported in subjects with ADHD are due to either the pharmacotherapy used to treat ADHD or to comorbidity with mood or anxiety disorders. There has also been relatively little research of females with ADHD. The object of this presentation is to study the impact of ADHD on sleep difficulties with particular attention to psychiatric comorbidity, pharmacotherapy and the potential modifying effect of gender on each of these predictors.

**Methods.** Two case control studies of males (128 ADHD cases, 109 non-ADHD controls) and females (114 ADHD cases, 109 non-ADHD controls) were administered structured diagnostic interviews (KSADS) to diagnose ADHD, to cover psychiatric history, and to determine treatment history. Specific sleep characteristics were systematically ascertained using the Children Sleep Behavior scale with established psychometric properties. It was completed by the parent and assessed 20 domains of sleep related behaviors scored on a 5 point likert-type scale : never, rarely, sometimes, quite often, and often. Factor analysis was used to reduce the number of items examined in comparing ADHD cases and controls. Statistical significance was determined at  $p < 0.05$ .

**Results.** Seven factors had Eigen values greater than the required cutpoint of 0.4 and were retained. ADHD subjects had elevated scores on several of factors describing sleep behavior problems. Difficulties in transitioning to bed or sleep were associated with ADHD a significant predictor after psychiatric comorbidity and treatment history were taken into account. Mood disorders were significantly associated only with having extreme reactions to nightmares or crying in their sleep. Anxiety and stimulant therapy were associated with the largest number of factors. For each of these predictors there was no statistical evidence of a gender effect.

**Conclusions.** Consistent with our prior studies assessing the effects of gender on ADHD and its correlates, we did not find gender to impact sleep behavior or its predictors. We also found that ADHD subjects had higher problem scores on several indices of sleep disturbance and that comorbid anxiety disorder and with stimulant pharmacotherapy conferred an additional risk. These findings document significant sleep behavior problems in individuals with ADHD that may have a significant impact on quality of life.

#### No. 23B

### NEW THERAPEUTIC DEVELOPMENTS IN ADHD

Joseph Biederman, M.D. *Massachusetts General Hospital, Department of Psychiatry, 55 Fruit Street, Warren 705, Boston, MA, 02114*

#### SUMMARY:

Despite the availability of safe and effective treatments for pediatric and adult ADHD, they improve the lives of patients with ADHD. A series of new treatments and refinements of existing ones are emerging that will expand the available therapeutics options. There is new data from large scale, randomized clinical trials that have been conducted documenting the safety and efficacy of the wake promoting agent Modafinil in the treatment of pediatric ADHD, the d-isomer of methylphenidate in the treatment of pediatric and adult ADHD, a novel transdermal delivery system of methylphenidate in the treatment of pediatric ADHD, OROS methylphenidate in the treatment of adult ADHD, and a new formulation of the alpha-2

agonist guanfacine in the treatment of pediatric ADHD. These new results will be reviewed and discussed.

**No. 23C**  
**DEFINING EXECUTIVE FUNCTION DEFICITS IN ADHD**

Ronna Fried, Ed.D. *Massachusetts General Hospital, Clinical and Research Programs in Pediatric Psychiatry and Adult ADHD, 165 Tremont Street, 501, Boston, MA, 02111*

**SUMMARY:**

**Objective:** The objectives of this research were to examine the association between executive function (EF) deficits and functional outcomes among children and adults with ADHD. **Methods:** Subjects were individuals with and without DSM-IV diagnostic criteria for ADHD. For adults, psychometrically defined EFDS and behaviorally defined EFDs were evaluated. For children, only the psychometric method was utilized because a children's version of an EF behavioral scale was unavailable at the time. **Results:** In both children and adults, using the psychometrically defined method, significantly more individuals with ADHD had EFDs than controls. Using both methods of defining EFDs, adults with ADHD+EFD had significantly lower levels of education, occupation, and overall SES. Additionally, EFDs in adults were associated with a decrease in academic achievement, irrespective of ADHD status. In children, ADHD with EFDs was associated with an increased risk for grade retention and a decrease in academic achievement, relative to ADHD alone. **Conclusion:** The presence of EFDs in ADHD subjects was associated with significant functional morbidity beyond the diagnosis of ADHD alone. Psychometrically defined EFDs as well as behaviorally defined EFDs may help identify a subgroup of individuals with ADHD at high risk for educational, occupational, emotional, and interpersonal deficits.

**No. 23D**  
**ADVANCES IN F-MRI RESEARCH IN ADHD**

George Bush, M.D. *Massachusetts General Hospital, Psychiatric Department, MGH-East, CNY-149/2614, Charlestown, MA, 02129*

**SUMMARY:**

Attention-deficit/hyperactivity disorder (ADHD) is characterized by developmentally inappropriate inattention, impulsivity, and motor restlessness. ADHD affects approximately 5% of school-age children, and often persists into adulthood. Thus, determining ADHD's underlying neurobiology is of major importance. A number of functional and structural neuroimaging techniques are being used in combination with neuropsychological, genetic, and neurochemical studies to better understand the neural substrate of ADHD. These studies have generally implicated fronto-striatal network abnormalities as the likely cause of ADHD (in particular, the dorsal anterior cingulate cortex, dorsolateral prefrontal cortex, caudate, corpus callosum, and cerebellum have been shown to display morphological and functional abnormalities that may lead to the clinical pathology observed in this disorder). This presentation will review the current state of neuroimaging's contribution to understanding ADHD. It will highlight convergent evidence from structural and functional neuroimaging studies relevant to ADHD, and describe how cognitive activation tasks may be used to help elucidate ADHD pathophysiology and possibly aid clinical decision-making.

**No. 23E**  
**NEW TARGETS FOR PHARMACOGENETIC RESEARCH IN ADHD**

Stephen V. Faraone, Ph.D. *SUNY Upstate Medical University, Psychiatry, 750 East Adams Street, Syracuse, NY, 13210*

**SUMMARY:**

This presentation will review the current state of knowledge about the pharmacogenetics of attention deficit hyperactivity disorder (ADHD) and present new pharmacogenetic data implicating the norepinephrine transporter (NET) gene and the monoamine oxidase A (MAOA) gene in the response to methylphenidate. In the NET study, 45 ADHD youth were treated with methylphenidate in doses of 0.45–0.60mg/kg/day. Efficacy measured by the ADHD-Rating Scale IV. We found a significant association between NET G1287A genotypes and response to methylphenidate for hyperactive-impulsive subscale scores but not inattentive scores. In the MAOA study, 40 subjects were studied. There was a significant association between MAOA 30bp VNTR genotypes and response to methylphenidate. Patients with the 4-repeat allele showed less reduction in symptoms than those with 3-repeat allele. These data suggesting that NET and MAOA play a role in response to methylphenidate will be discussed in the context of other pharmacogenetic data and what is known about the molecular genetics of ADHD. Implications for clinical practice and drug development are also discussed.

**REFERENCES:**

1. Mick E, Biederman J, Jetton J, Faraone SV: Sleep disturbances associated with attention deficit hyperactivity disorder: the impact of psychiatric comorbidity and pharmacotherapy. *Journal of Child and Adolescent Psychopharmacology* 2000; 10(3):223-231.
2. Journal Article - Biederman, J. et al.: Impact of Executive Function Deficits and ADHD on Academic Outcomes in Children. *J of Consulting and Clinical Psychology* 2004; 72(5): 757-766.
3. Bush G, Valera EM, Seidman LJ. Functional neuroimaging of attention-deficit/hyperactivity disorder: a review and suggested future directions. *Biological Psychiatry* (In press).
4. McGough, J.J. (2005). "Attention-deficit/hyperactivity disorder pharmacogenomics." *Biol Psychiatry* 57(11): 1367-73.

**INDUSTRY-SUPPORTED SYMPOSIUM**  
**24—ATYPICAL DEPRESSION: MERGING EVIDENCE AND PUBLIC POLICY**  
**Supported by Bristol-Myers Squibb Company**

**EDUCATIONAL OBJECTIVES:**

- Identify the clinical features of atypical depression.
- Examine the neurobiological underpinnings of atypical depression.
- Implement a treatment plan that incorporates non-pharmacologic and pharmacologic strategies to enhance patient outcomes.

**No. 24A**  
**THE NEUROBIOLOGY OF DEPRESSION: BRINGING THE LATEST IN SCIENCE TO CLINICIANS**

Charles B. Nemeroff, M.D. *Emory University School of Medicine, Department of Psychiatry, 1639 Pierce Dr., Atlanta, GA, 30322*

**SUMMARY:**

Our ability to treat the spectrum of depressive disorders is made much more difficult due to an incomplete understanding of the underlying neurobiology, although great progress has been made in the

past 2 decades. It is now clear that depression is not the result of a single gene defect, but results from a complex interaction between early life experiences, genetic vulnerability, and more recent environmental factors. Atypical depression refers to a subtype of depression that is almost the opposite of melancholia, with mood reactivity, appetite increase and weight gain, hypersomnia, leaden limb paralysis and significant interpersonal rejection sensitivity. Patients with atypical depression often experience greater functional impairment than their non-atypical counterparts. In the spectrum of atypical depression a decrease in hypothalamus-pituitary-adrenocortical (HPA) axis activity, and a relative deficiency of corticotropin-releasing hormone (CRH) has been reported. Opposite vegetative features might therefore be related to the distinct dysregulation of the HPA axis. Reciprocal interactions exist between the amygdala and the hippocampus and the stress system, which stimulates these elements and is regulated by them. Not surprisingly, the pharmacological management of atypical depression spectrum differs from that used in the management of typical major depression. This presentation will explore the neurobiology of atypical depression with a focus on the development of rational treatments based on its unique pathophysiology.

**No. 24B**  
**PHENOMENOLOGY OF ATYPICAL DEPRESSION**

Hans-Juergen Moeller, M.D. *University Munich, Psychiatry Department, Nussbaumstrasse, 7, Munich, 80336, Germany*

**SUMMARY:**

The DSM-IV definition of atypical depression requires the absence of melancholic or catatonic features, the presence of mood reactivity, and at least two of the following features: increase in appetite or weight gain, hypersomnia, leaden paralysis, or long-standing interpersonal rejection sensitivity. However, the validity of the definition for atypical depression and its clinical significance have been increasingly questioned. Evidence that mood reactivity does not always appear to be central to diagnosis, as well as lack of interdependency of accessory features, have been used to argue that atypical depression is not a true syndromal construct. Specific criteria for atypical depression overlaps with Bipolar Disorder Type II, especially in regard to key symptoms such as oversleeping, overeating, and weight gain. Temperament may also play a more extensive role in atypical depression than previously recognized. Anxiety has been called a predictor for increased response to therapy with monoamine oxidase inhibitors, and there is a potential correlation with patients with atypical depression and an increase in reward dependence (i.e., high need for others). The presentation will explore these characteristics of atypical depression, in an effort to instruct clinicians on the intricacies of understanding and diagnosing the disorder.

**No. 24C**  
**AN EVIDENCE-BASED APPROACH TO MANAGING THE DISABILITIES OF ATYPICAL DEPRESSION**

Justine M. Kent, M.D. *Columbia Presbyterian Hospital, Department of Psychiatry, 12 Franklin Road, Mendham, NJ, 07945*

**SUMMARY:**

Atypical depression differs from major depressive disorder in several key parameters, including biologic variables, treatment response, demographic characteristics, and age of onset. Most randomized controlled clinical trials testing treatment strategies have focused on young patients with atypical depression. Late-onset depression, by contrast, has been insufficiently studied. Pharmacologic treatment in this patient population has proven difficult, as patients with late-onset atypical depression exhibit less favorable response to treatment and are more likely to develop resistance to medications. Atypical

depression commonly follows a chronic course, and patients will often require long term treatment. However, long-term treatment for more than six months has been infrequently studied. Monoamine Oxidase Inhibitors (MAOIs) have been shown to be more effective than tricyclic antidepressants in the treatment of atypical depression. The more recently-developed Selective-Serotonin Reuptake Inhibitors (SSRIs) were thought to be effective for both typical and atypical depression; however, most clinical trials focused on treatment in patients with typical features. Researchers have also demonstrated success in using cognitive behavior therapy to treat patients although the evidence for efficacy in atypical depression is scarce. These treatment modalities and other studies will be reviewed, to allow clinicians to formulate effective treatment strategies for patients with atypical depression.

**No. 24D**  
**FUTURE DIRECTIONS IN THE TREATMENT OF ATYPICAL DEPRESSION**

Michael E. Thase, M.D. *University of Pittsburgh Medical Center, Department of Psychiatry, 3811 O'Hara St., Pittsburgh, PA, 152132593*

**SUMMARY:**

Although the concept of atypical depression dates back nearly 50 years, clinical interest in this condition has ebbed and flowed, largely in response to the prevailing therapies of the era. Interest last peaked in the 1980s following publication of pivotal trials that documented the superiority of the nonselective, irreversible monoamine oxidase inhibitor (MAOI) over tricyclic antidepressants (TCAs) such as imipramine, only to wane in the late 1990s, partly because no newer, safer MAOIs were introduced in the United States and partly because the dominant therapies, including the selective serotonin reuptake inhibitors (SSRIs), bupropion, and venlafaxine represented significant improvements over the older standard, the TCAs. With the impending approval of seligiline, a selective and reversible inhibitor of MAO type B, as a transdermally delivered therapy for major depressive disorder, it is timely to reexamine the role of MAOIs - both newer selective and older nonselective compounds - in comparison to other therapeutic options for atypical depression. This talk will examine evidence of differential treatment response in atypical depression and weigh the pros and cons of established therapies and consider future directions.

**REFERENCES:**

1. Berns GS and Nemeroff CB. 2003. The neurobiology of bipolar disorder. *Amer J Medical Genetics* 123C:76-84.
2. Parker G, Roy K, Mitchell P, Wilhelm K, Malhi G, Hadzi-Pavlovic D. Atypical depression: a reappraisal. *Am J Psychiatry* 2002;159:1470-1479.
3. Roose SP, Miyazaki M, Devanand D, Seidman S, Fitzsimmons L, Turret N, Sackeim H. An open trial of venlafaxine for the treatment of late-life atypical depression. *Int J Geriatr Psychiatry* 2004;19:989-994.
4. Lotufo-Neto F., Trivedi M, Thase ME. Metaanalysis of the reversible inhibitors of monoamine oxidase type A moclobemide and brofaromine in the treatment of depression. *Neuropsychopharmacol* 20(3):226-247, 1999.

**INDUSTRY-SUPPORTED SYMPOSIUM  
25—INSOMNIA FROM THE INSIDE OUT:  
FROM NEUROSCIENCE TO CLINICAL  
EXPERIENCE TO PUBLIC POLICY**  
Supported by Pfizer, Inc. and Neurocrine  
Biosciences, Inc.

**EDUCATIONAL OBJECTIVES:**

1. Review the science of insomnia from the neurobiology to clinical practice
2. Assess the ways that the practitioner can be informed by the clinical research
3. Demonstrate an understanding of the impact of insomnia on the individual, healthcare and public policy

**No. 25A**

**INSOMNIA: SYMPTOM, SYNDROME, OR  
DISORDER?**

Martin B. Keller, M.D. *Brown University, Department of Psychiatry, 345 Blackstone Blvd, Butler Hospital, Providence, RI, 02906*

**SUMMARY:**

Defining insomnia can be approached from different perspectives. Some view it as a symptom, others as a syndrome while many experts believe it is a distinct disorder. Insomnia presents in many ways and often comorbidity is the rule rather than the exception. Approximately 35% to 40% of patients will have a primary psychiatric disorder as the reason for their poor sleep. About 10% to 15% have primary insomnia. Sleep disturbance is part of the diagnostic criteria for many disorders, particularly mood and anxiety disorders. Sixty percent to 90% of patients seeking treatment for depression complain of sleep disruption. There is also an increased incidence of insomnia in patients with anxiety disorders. Many patients with psychiatric disorders complain of sleep difficulties not only during acute illness but also during periods of remission.

In addition to the strong correlations between sleep disturbance and psychiatric disorders, patients with primary medical disorders show increased rates of insomnia. A 2003 National Sleep Foundation poll and a survey of medical patients in primary care settings revealed that a number of medical conditions were significantly associated with insomnia, including pain, menopause, diabetes mellitus, myocardial infarction, congestive heart failure, angina pectoris, hip impairment, prostate problems, and obstructive airway disease. Insomnia also has an impact on quality of life as well as personal relationships, work and social functioning.

**No. 25B**

**THE SCIENCE OF INSOMNIA**

Phyllis C. Zee, M.D. *Northwestern University, Department of Neurology, 710 N. Lake Shore Drive, 1126, Chicago, IL, 60611*

**SUMMARY:**

During the past decade, there has been tremendous progress in our understanding of the neural regulation of sleep and wakefulness. Current knowledge indicates that sleep and wake behaviors are generated by a complex interaction of endogenous circadian and sleep homeostatic processes, as well as social and environmental factors. Understanding insomnia and its treatment requires a brief review of the neurobiology and neurochemistry of sleep and circadian rhythms. The GABA receptor is a major inhibitory receptor in the central nervous system and has been the primary target for hypnotic medications used in the treatment of insomnia. Development of compounds

with increased selectivity at the GABA-A subunits and unique pharmacokinetic properties can improve efficacy, safety and tolerability. With the recent rapid advances in our understanding of the science of sleep and wake regulation, it is likely that in the near future, compounds with novel mechanisms of action and a wider array of choices will become available.

**No. 25C**

**PUTTING THE SCIENCE TO WORK**

Daniel J. Buysse, M.D. *University of Pittsburgh School of Medicine, Department of Psychiatry, Western Psychiatric Institute and Clinic, 3811 O'Hara Street; Room E-1127, Pittsburgh, PA, 15213-2593*

**SUMMARY:**

**Objective:** Assess the way that the science can translate into clinical practice and how research studies can inform the clinician.

**Abstract**

While it is important for clinicians to know the science of insomnia, translating the neuroscience into a clinical reality is the task of real-world research. Clinical studies can guide the clinician toward a better understanding of pharmacotherapeutic interventions by demonstrating an evidence base to confirm whether actual clinical practice lives up to the promise of the science.

The hypnotic agents currently approved to treat insomnia are benzodiazepine receptor agonists. However physicians often use drugs from other classes to treat insomnia. There are also newer agents under development that offer either greater selectivity at the GABA receptor level or other novel approaches to treatment. The effects of these drugs on sleep, and the quality of evidence regarding their efficacy varies considerably. Understanding the sleep and clinical science behind these agents can inform rational clinical practice. Cognitive-behavioral interventions have also been studied in the treatment of insomnia with positive results. By reviewing data from clinical studies of behavioral and novel pharmacologic treatments, and in particular by looking at their effects on sleep and daytime function, we will demonstrate how sleep science can translate to the treatment of insomnia.

Keeping up-to-date on current research and novel interventions will inform the busy practitioner about how the science can help in the assessment and treatment of insomnia.

**No. 25D**

**INSOMNIA: COST OF ILLNESS, PUBLIC POLICY,  
AND MEDICOLEGAL ISSUES**

Alan W. Newman, M.D. *Georgetown University Hospital, Director, Residency Training, 3800 Reservoir Road NW, Washington, DC, 20007*

**SUMMARY:**

Healthcare utilization is increased among insomnia patients, as well as physician visits, laboratory tests, medications, and dietary supplement costs. There are many arenas in which fatigue and/or sleepiness have a major impact on public safety which lack policy regulations. These include highway crashes, even though sleepiness is estimated to cause at least 56,000 motor vehicle crashes, resulting in more than 1,500 deaths annually. There are few regulations limiting the number of consecutive hours to which employees in the health care industry may be scheduled to work, despite evidence of increased rates of medical errors. Firefighters and paramedics are often scheduled to work 72 hour shifts, again without regulation. According to the National Sleep Foundation, the direct costs of insomnia, which include dollars spent on insomnia treatment, healthcare services, hospital and nursing home care, are estimated at nearly \$14 billion annually. Indirect costs such as work loss,

property damage from accidents and transportation to and from healthcare providers, are estimated to be \$28 billion. A recent NIH Consensus Statement discussed the salient issues in the recognition, diagnosis and treatment of insomnia. A review of the consequences, morbidities, comorbidities and public health burden can help shape future directions, public awareness and legislative changes. In addition, the talk will address some of the medico-legal consequences of damages caused by insomnia, including the civil and criminal liability of patients, providers, and regulating entities.

#### REFERENCES:

1. Saper CB, Chou TC, Scammell TE. The sleep switch: hypothalamic control of sleep and wakefulness. *Trends Neurosci.* 2001 Dec;24(12):726-31. Review.
2. Buysse DJ, Germain A, Moul D, Nofzinger EA: Insomnia. In: DJ Buysse (ed.) *Sleep Disorders and Psychiatry*, (JM Oldham, MB Riba, series editors) American Psychiatric Publishing Advances in Psychiatry. Arlington, VA: American Psychiatric Publishing, Inc.
3. Thase ME et al. Differential effects of nefazodone and cognitive behavioral analysis system of psychotherapy on insomnia associated with chronic forms of major depression. *J Clin Psychiatry.* 2002 Jun;63(6):493-500.
4. Mittleer MM, Carskadon MA, Czeisler CA, Dement WC, Dinges DF, Graeber RC. Catastrophes, sleep, and public policy: consensus report. *SLEEP* 1988;11:100-9.

**MONDAY, MAY 22, 2006**

### **INDUSTRY-SUPPORTED SYMPOSIUM 26 PART 1—CLINICAL IMPLICATIONS OF CHOICES OF ATYPICAL ANTIPSYCHOTICS: REALITIES AND MYTHS, PART 1**

**Supported by Bristol-Myers Squibb  
Company and Otsuka America  
Pharmaceutical, Inc.**

No. 26A

#### **IMPACT OF SHORT-TERM DECISION ON LONG- TERM OUTCOMES**

Stephen R. Marder, M.D. *VA Greater LA Health Care System, Department of Psychiatry, VA Greater LA Healthcare System, Bldg. 258, Room 111 (116A), Los Angeles, CA, 90073-1003*

#### SUMMARY:

Clinicians who are planning the treatment of an acute psychotic episode in schizophrenia should consider the long-term consequences of their decisions. This talk will focus on evidence-based practices during short term treatment that are likely to improve the long-term functional outcome of schizophrenia.

This talk will use the recommendations of the Schizophrenia Patient Outcomes Research Team (PORT), the American Psychiatric Association Practice Guidelines for Schizophrenia, and the two Mount Sinai Consensus Conferences to demonstrate effective practices that can be initiated during an acute psychotic episode. Decisions about the selection of an antipsychotic drug and the drug dose should be based on a number of factors including the patient's prior responses, health vulnerabilities such as the risk of diabetes, obesity, and hyperlipidemias, and the patient's preference. The talk will em-

phasize the literature demonstrating that a patient's subjective experience on an antipsychotic is one of the most powerful predictors of whether the patient will adhere to drug treatment.

Although psychosocial rehabilitation is usually initiated during the stable phase of schizophrenia, there are a number of practices that can be initiated during acute treatment. These include educating patients and their family members about their illness and its management and assisting the patient in addressing factors that will interfere with the patient's adhering to drug treatment. There is also a substantial literature indicating that patients with a history of poor treatment adherence may benefit from long-acting antipsychotics.

As antipsychotic medication is initiated clinicians should assure that physical health monitoring is also initiated. The Mount Sinai and American Diabetes Guidelines will be presented as a strategy for improving the long-term health risks that may be associated with schizophrenia and its treatment.

No. 26B

#### **NEUROCOGNITION, FUNCTIONAL OUTCOMES, AND PSYCHOPHARMACOLOGY**

Michael Green, M.D. *University of California, Los Angeles, Department of Psychiatry, Box 956968, Suite 2263, Los Angeles, CA, 90095*

#### SUMMARY:

Cognitive deficits are a core feature of schizophrenia and these deficits are associated cross-sectionally and prospectively with community functioning. These deficits are also closely related to the degree of success that patients have in psychosocial rehabilitation. The second generation antipsychotic medications offer some cognitive advantages when they are compared with first generation medications, but they do not fully normalize the deficits. There is currently considerable interest in the development of drugs to improve cognitive deficits in schizophrenia. One of the challenges in this area is how to demonstrate that these drugs would achieve functionally meaningful outcomes that could be observed in clinical trials. Potential measures for this purpose, including measures of functional capacity, will be discussed.

#### REFERENCES:

1. Marder SR et al. The Mount Sinai Conference on the Pharmacotherapy of Schizophrenia. *Schizophr Bull* 2002; 28(1):5-16.
2. Green MF, Kern RS, Heaton RK. Longitudinal studies of cognition and functional outcome in schizophrenia: implications for MATRICS. *Schizophrenia Research* 2004;72:41-51.

**TUESDAY, MAY 23, 2006**

### **INDUSTRY-SUPPORTED SYMPOSIUM 26 PART 2—CLINICAL IMPLICATIONS OF CHOICES OF ATYPICAL ANTIPSYCHOTICS: REALITIES AND MYTHS, PART 2**

**Supported by Bristol-Myers Squibb  
Company and Otsuka America  
Pharmaceutical, Inc.**

No. 26C

#### **BRIDGING PHARMACOLOGY AND CLINICAL EFFECTIVENESS IN SCHIZOPHRENIA**

Anissa Abi-Dargham, M.D. *Columbia University Medical School, 1051 Riverside Drive, New York, NY, 10032*



**SUMMARY:**

The development of antipsychotics has evolved with an increasing appreciation of the pharmacologic mechanisms underlying psychotic disorders. We now know that the positive and negative symptoms are mediated by dopamine D<sub>2</sub> receptor hyperstimulation in the mesolimbic pathway and suboptimal dopamine D<sub>1</sub> receptor stimulation at the mesocortical pathway. The efficacy of first generation of antipsychotics is mediated by D<sub>2</sub> antagonism, which is ineffective in managing negative symptoms and in the nigrostriatal, tuberoinfundibular, and mesolimbic pathways is associated with extrapyramidal symptoms (EPS), hyperprolactinemia, and anhedonia/dysphoria. Second generation antipsychotics serve as both dopamine and serotonin 5-HT<sub>2A</sub> antagonists and are associated with improved efficacy against negative symptoms and decreased rates of EPS and hyperprolactinemia, presumably due to serotonergic modulation of dopamine pathways. Broader receptor-binding profiles are associated with cardiovascular, neurologic, and metabolic adverse effects. The latest generation of antipsychotics stabilizes dopaminergic and serotonergic pathways by acting as partial agonists at D<sub>2</sub> and serotonin 5-HT<sub>2A</sub> receptors, and is effective in managing both positive and negative symptoms without causing EPS, hyperprolactinemia, or dysphoria.<sup>1</sup>

**No. 26D****ADVANCES IN PHARMACOTHERAPY FOR MAINTENANCE TREATMENT IN BIPOLAR DISORDER**

Terence A. Ketter, M.D. *Stanford University School of Medicine, Department of Psychiatry and Behavioral Sciences, PBS 2200, Stanford, CA, 94305*

**SUMMARY:**

Management strategies for acute mania have evolved considerably in the last several years, with several agents receiving FDA approval for this indication. Recent clinical trials demonstrate the utility of atypical antipsychotics for the management of acute mania either alone or in combination with mood stabilizers. The current APA guidelines recommend treating mild-to-moderate manic or mixed episodes with an atypical antipsychotic or a mood stabilizer, and managing severe or breakthrough episodes with a combination of the two. As a class, the atypical antipsychotics appear effective in treating acute mania, offering rapid onset of action and a broad efficacy spectrum. However, these agents differ from one another with respect to their tolerability and safety profiles, which have significant clinical implications, particularly with chronic administration. Integrating such efficacy and tolerability considerations into practice is crucial to optimizing pharmacotherapy of acute mania.

**REFERENCES:**

1. Abi-Dargham A, Laruelle M. Mechanisms of action of second generation antipsychotic drugs in schizophrenia: insights from brain imaging studies. *Eur Psychiatry*. 2005;20:15-27.
2. Ketter TA(ed). *Advances in the Treatment of Bipolar Disorders*. Washington, DC: American Psychiatry Press, Inc. 2005.

**MONDAY, MAY 22, 2006****INDUSTRY-SUPPORTED SYMPOSIUM 27  
PART 1—EVIDENCE, OUTCOMES, AND  
ADVOCACY: SHAPING THE  
MANAGEMENT OF GAD, PART 1  
Supported by Cephalon, Inc.****EDUCATIONAL OBJECTIVES:**

1. Identify and recognize the myriad of presentations of anxiety disorders

2. Recognize the somatic comorbidities of anxiety disorders
3. Evaluate targeted non-pharmacologic and pharmacological strategies for the optimal treatment of generalized anxiety disorder.

**No. 27A****EVIDENCE-BASED ADVOCACY: A DATA-DRIVEN LOOK AT THE SOMATIC EXPRESSION OF GAD**

Philip R. Muskin, M.D. *Columbia University, Department of Psychiatry, 1700 York Avenue, #1-L, New York, NY, 10128*

**SUMMARY:**

Anxiety disorders are frequently comorbid with other psychiatric disorders, particularly major depressive disorder. The National Comorbidity Study indicates that >50 percent of patients with MDD have at least one anxiety disorder. The NIMH estimates that almost 20 million Americans suffer from anxiety disorders with a 2 to 1 prevalence of women to men. Anxiety disorders cause as much functional disability as chronic cardiovascular disease. The frequent comorbidity of anxiety disorders with other psychiatric disorders results in the failure to recognize generalized anxiety disorder (GAD), social anxiety disorder (SAD), and obsessive-compulsive disorder (OCD). This occurs in both primary care and psychiatric settings. Patients with anxiety disorders often present with physical symptoms, leading their primary care physicians to pursue medical evaluations. Thirty-five percent of patients have medically unexplained symptoms. Twenty-five percent of these patients have chronic medical illness. In this group 15 to 35 percent of the patients have no clear psychiatric pathology. Chest pain, abdominal pain, shortness of breath, headaches, fatigue, and dizziness predominate as physical presentations of anxiety disorders. This presentation will focus upon the data describing the comorbidity of anxiety and other disorders, particularly on the somatic presentation of anxiety disorders. Somatic presentations particularly suggestive of an anxiety disorder will be reviewed. Recommendations for identifying patients with anxiety disorders will be reviewed.

**No. 27B****COMORBIDITY IN GAD: A PUBLIC HEALTH CHALLENGE**

John L. Beyer, M.D. *Duke University School of Medicine, Psychiatry and Behavioral Sciences, 3101 Annandale Road, Durham, NC, 27710*

**SUMMARY:**

It is well known that Major Depressive Episodes and Generalized Anxiety Disorder are frequently comorbid conditions. Fifty-eight percent of individuals with major depression have an anxiety disorder, and 67% of individuals with generalized anxiety disorder have lifetime comorbidity with major depression. When comorbid, the association severely complicates treatment. The combination of anxiety and depression is associated with increased morbidity, increased symptom severity, increased chronicity, and increased functional impairment. It also is associated with increased suicide risk. This presentation will review the interaction of mood and anxiety symptoms in GAD and discuss new research that highlights how the presence of mood disorders affects the course of GAD, informs treatment selection and outcome, and potentially may demonstrate a better understanding of the etiology of both diseases.

**REFERENCES:**

1. Wittchen HU, et al. DSM-III-R generalized anxiety disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1994;51:355-364.

2. Bruce SE, et al. Influence of psychiatric comorbidity on recovery and recurrence.

**TUESDAY, MAY 23, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 27  
PART 2—EVIDENCE, OUTCOMES, AND  
ADVOCACY: SHAPING THE  
MANAGEMENT OF GAD, PART 2  
Supported by Cephalon, Inc.**

**EDUCATIONAL OBJECTIVES:**

1. Identify and recognize the myriad of presentations of anxiety disorders
2. Recognize the somatic comorbidities of anxiety disorders
3. Evaluate targeted non-pharmacologic and pharmacological strategies for the optimal treatment of generalized anxiety disorder.

**No. 27A  
THE COGNITIVE EXPRESSION OF GAD**

David J. Nutt, M.D. *University of Bristol, Psychopharmacology, Whitson Street, Bristol, BC, B531 1TD*

**SUMMARY:**

One of the core symptoms of GAD is a persistent and pervasive cognitive sense of feeling anxious. Normal daily activities are misinterpreted cognitively resulting in increased levels of anxiety and worry. For example shortness of breath after running up a flight of stairs can be cognitively misinterpreted as an anxiety attack. The neurocircuitry of the cognitive expression of GAD involves the limbic system and in particular, the amygdala. Dysfunction in the neurocircuitry connecting the amygdala to the orbitofrontal cortex may contribute to anxiety by impairing the ability to inhibit cognitive responses to perceived stressors. Specific psychotherapies that target the cognitive distortions that are a key feature of GAD have been shown to be effective. This presentation will explore the cognitive expressions of GAD and offer participants insights for improving cognitive dysfunction in patients with GAD.

**No. 27B  
GENDER DIFFERENCES IN GAD FROM  
MENARCHE TO MENOPAUSE**

Marlene P. Freeman, M.D. *Arizona Health Sciences Center, College of Med Dept. of Psych, 1501 N. Campbell Avenue, Tucson, AZ, 85724-5002*

**SUMMARY:**

Generalized anxiety disorder (GAD) is known to be a chronic and disabling disease. Despite the fact that generalized anxiety disorder is much more prevalent in women than in men (6.6% vs. 3.6%), data regarding the impact of gender on the diagnosis and management of GAD is lacking. The reproductive life of a woman from menarche to menopause is associated with significant hormonal changes and fluctuations that may contribute to an increased risk for anxiety disorders. Anxiety disorders accompany pre- and postpartum depression in up to 50% of patients. Anxiety during pregnancy has been associated with an increase in perinatal complications. Untreated anxiety in the child-bearing years may have an impact on reproduc-

tive functioning and pregnancy outcomes. This interactive presentation will explore the evidence of gender differences on the expression of generalized anxiety disorder throughout the reproductive life cycle of a woman.

**No. 27C  
THE EVIDENCE SUPPORTING TARGETED  
PHARMACOTHERAPY IN GAD**

David V. Sheehan, M.D. *University of South Florida, Department of Psychiatry, 3515 E Fletcher Ave, Tampa, FL, 33613-4706*

**SUMMARY:**

Generalized anxiety disorder is a syndrome, a collection of symptoms affecting a variety of body systems and a disorder associated with work and social disability, economic consequences and frequent comorbidity with other axis one psychiatric disorders. Faced with this array of possible treatment targets how should the practicing clinician prioritize treatment interventions and augmentation strategies to achieve a good outcome against all dimensions of the disorder and the majority of cases encountered? GAD symptoms are a psychic anxiety and a somatic anxiety cluster. These clusters do not respond equally well or in tandem to treatment. Typically psychic anxiety responds more completely and more rapidly. The somatic symptoms respond later. Meaningful improvement in disability and functional impairment takes even longer. To achieve remission (or an improvement of >70%) may take several months. SSRIs and SNRIs are first-line treatments in GAD. Other treatments include benzodiazepines and buspirone, tricyclic antidepressants, monoamine oxidase inhibitors, novel antidepressants, anticonvulsants and atypical neuroleptics. Yet the evidence in support of many of these treatments in GAD is very limited. The application of these diagnostic and treatment strategies will be illustrated using video clips of real patients with generalized anxiety disorder and graphics of the algorithms described above.

**REFERENCES:**

1. Wells A. A cognitive model of generalized anxiety disorder. *Behav Modif.* 1999 Oct;23(4):526-55.
2. Lolak S, Rashid N, Wise TN. Interface of women's mental and reproductive health. *Curr Psychiatry Rep.* 2005 Jun;7(3):220-7.
3. Raj BA, Sheehan DV. Antidepressants in the treatment of generalized anxiety disorder. Chapter 11 In: *Generalized Anxiety Disorder.* Clive Lawson, ed. Martin Dunitz Ltd. London, UK. 2002 pp. 136-152.

**MONDAY, MAY 22, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 28  
PART 1—ATTAINING AND SUSTAINING  
REMISSION IN TREATMENT OF  
DEPRESSION WITH COMORBID OR  
RESIDUAL ANXIETY, PART 1  
Supported by Wyeth Pharmaceuticals**

**EDUCATIONAL OBJECTIVES:**

- At the completion of this symposium, participants will be able to:
1. Compare and contrast various therapeutic strategies used in the diagnosis and treatment of depression with comorbid anxiety
  2. Discuss the clinical impact of the goal of treatment to remission, versus symptom management

3. Consider the impact of differing clinical thought processes in collaborative management of patients with comorbid depression

**No. 28A  
IMPACT OF ASSOCIATED ANXIETY SYMPTOMS  
ON DEPRESSION**

Peter P. Roy-Byrne, M.D. *University of Washington/Harborview Medical Center, Department of Psychiatry, 325 9th Avenue, Box 35-9911, Seattle, WA, 98104*

**SUMMARY:**

The substantial anxiety symptom and syndromal comorbidity with depressive disorders has a significant impact on the diagnosis and treatment of these conditions. The presence of prominent and sometimes dramatic anxiety symptoms in emotionally distressed patients can obscure the diagnosis of depression, particularly when symptoms of panic and generalized anxiety are present. In contrast, comorbid social anxiety and PTSD symptoms are more likely to be missed and attributed to the underlying depressive disorder they may co-occur with. Anxiety symptoms, because of their prominent somatic focus, may also cause non-specialist clinicians to focus more on possible medical etiologies and delay recognition and treatment of depression, and may account for incomplete remission and residual symptoms. Once a proper diagnosis is made, anxiety often has a major impact on patient treatment engagement and adherence. Anxious patients less often perceive a need for treatment, are frequently concerned that their symptoms represent an undiagnosed medical condition, may be affected by stigmatizing social attitudes that suggest anxiety represents a personal failure of adequate resilience and ability to cope, and may be apprehensive about psychopharmacologic treatments. Finally, data suggests that such patients have higher rates of negative placebo (nocebo) responses, an exaggerated sensitivity to normally occurring medication side effects, and possibly both a delayed response to treatment, and a higher rate of treatment refractoriness.

**No. 28B  
COLLABORATIVE MANAGEMENT STRATEGIES  
FOR PATIENTS WITH COMORBID ANXIETY WITH  
DEPRESSION**

Wayne J. Katon, M.D. *University of Washington Medical Center, Department of Psychiatry, 1959 NE Pacific Street, Box 356560, Seattle, WA, 98195-6560*

**SUMMARY:**

Dr Katon will describe a decade of research that has demonstrated how to most effectively integrate mental health specialists into primary care systems to improve adherence to antidepressant medications and clinical outcomes. These research models have involved use of stepped care algorithms for provision of both medication and evidenced-based psychotherapies into primary care. In these models psychiatrists have either worked directly in primary care aiding provision of psychopharmacologic treatments or have supervised other mental health professionals such as nurses in pharmacologic treatment. These models of care have been shown to be associated with improved patient and primary care physician satisfaction compared to usual care.

**No. 28C  
STRATEGIES TO ACHIEVE AND SUSTAIN  
REMISSION IN PATIENTS**

Shaily Jain, M.D. *UT Southwestern Medical Center at Dallas, Psychiatry, 5323 Harry Hines Blvd, Dallas, TX, 75390-9119*

**SUMMARY:**

Over the last several years there is increased recognition and recommendation for the goal of treatment in depression to be the achievement of early and sustained remission. Less than half of depressed patients reach this elusive goal. Relapse is a serious challenge. The presence of residual symptoms is an important predictor of subsequent early relapse. Broader, more integrative measures of remission, as well as attention to symptom resolution, should be incorporated into treatment. Traditionally treatment resistance has focused on non-response (e.g. minimal or no improvement on drug therapy). From the perspective of clinicians and patients, not achieving full remission represents a significant burden and therefore full remission should be the optimal goal. Despite major advances in the treatment of depression in recent years, depressive disorder is still associated with high rates of resistance to treatment, as well as relapse and recurrence. The number of patients achieving remission with initial treatment is no more than 35% among all patients treated, with the remaining requiring at least two or more steps in pharmacotherapy and or psychotherapy. Strategic treatment choices will be discussed that can be used to guide which treatment(s) to choose initially, and for those who do not respond, which treatment to choose next. Evidence for steps in treatment algorithms will be addressed. Finally, treatment approaches that enhance sustained remission will be discussed.

**REFERENCES:**

1. Frank E, Shear MK, Rucci P et al: Influence of panic-agoraphobia spectrum symptoms on treatment response in patients with recurrent major depression *American J Psychiatry* 2000; 57: 1101-1107.
2. Katon, W, Von Korff, M, Lin EHB, Simon, G: Rethinking practitioners.
3. Trivedi, M.H. Remission of Depression and the Texas Medication Algorithm Project. *Managed Care Interface, Supplement B, A Pharmacoeconomic Model of Remission in Major Depressive Disorder*, 9-13, 2003.

**TUESDAY, MAY 23, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 28  
PART 2—ATTAINING AND SUSTAINING  
REMISSION IN TREATMENT OF  
DEPRESSION WITH COMORBID OR  
RESIDUAL ANXIETY, PART 2  
Supported by Wyeth Pharmaceuticals**

**EDUCATIONAL OBJECTIVES:**

- At the completion of this symposium, participants will be able to:
1. Compare and contrast various therapeutic strategies used in the diagnosis and treatment of depression with comorbid anxiety
  2. Discuss the clinical impact of the goal of treatment to remission, versus symptom management
  3. Consider the impact of differing clinical thought processes in collaborative management of patients with comorbid depression

**No. 28A  
NEW STRATEGIES TO ADDRESS ANXIETY AND  
RESISTANT SOMATIC SYMPTOMS**

Mark H. Rapaport, M.D. *Cedars - Sinai Medical Center, Department of Psychiatry, 8730 Alden Dr, Suite C301, C-301, Los Angeles, CA, 90048*

**SUMMARY:**

One of the major challenges faced by clinicians in practice is the presence of and persistence of certain types of somatic symptoms of major depressive disorder. Symptoms such as insomnia, fatigue, anxiety, and irritability may not always track with improvement in the cognitive and mood symptoms of major depressive disorder. In fact, problems with anxiety, sleep and fatigue frequently are some of the most difficult symptoms to treat with traditional monotherapy antidepressant approaches. Recent longitudinal clinical data from both naturalistic and research populations demonstrate that the presence of these types of residual symptoms have been associated with a greater risk of relapse, impaired quality of life, and decreased functioning and productivity. This has led to the development of a variety of psychotherapeutic and pharmacological treatment approaches to eliminate these residual symptoms. Both Fava and colleagues and Paykel and colleagues have found that cognitive behavioral therapy can be successfully used to augment incomplete antidepressant medication responses. When these individuals meet remission criteria, they seem to be more protected against a relapse or recurrence of major depressive disorder. A series of targeted medication augmentation trials have recently been initiated that focus on eliminating residual symptoms such as anxiety, insomnia and fatigue. There is a consistent pattern of improvement in symptoms of anxiety and insomnia by employment of anxiolytics and sedative hypnotics. In these studies, acute augmentation therapy was associated with increased rates of remission. The data investigating whether these combinations enhance remission independent of their effects on anxiety and sleep have been equivocal, but very intriguing. Conversely, trials investigating the use of traditional and non-traditional stimulants to treat the residual symptoms of fatigue have produced mixed results. Although this strategy is commonly used in clinical practice, and there have been positive open-label augmentation studies, the limited double-blind data are less robustly positive. By the end of this presentation, the audience will understand the strength and limitations of our current data regarding the treatment of residual symptoms.

**No. 28B****HOW TO MONITOR PROGRESS OF TREATMENT OF DEPRESSION WITH ANXIETY**

Madhukar H. Trivedi, M.D. *University of Texas Southwestern Medical Center, Mood Disorders Research Program and Clinic, 5323 Harry Hines Blvd, Dallas, TX, 75390-9119*

**SUMMARY:**

Treatment of depression with anxiety is frequently not in accordance with current evidence-based research findings. Patients are often under-treated with respect to dose and duration of antidepressant medication and have inadequate follow-up particularly during the critical initial stages of treatment. Management of comorbid anxiety may not be well monitored and may flare, even as depressive symptoms yield to treatment. As a result, desired outcomes (full symptomatic remission and return of pre-morbid levels of functioning) are often not achieved. In an effort to enhance the quality of treatment for depression, there have been multiple guideline efforts undertaken, but few of these efforts systematically address management of common affective comorbidity such as anxiety. Even with this limitation, the rates of adherence to these guidelines and resultant algorithms have been modest at best.

Some recent efforts at monitoring the quality of pharmacotherapy and providing tools to assist in the management of depression have also been used to evaluate the degree of adherence to more general guidelines for depression and have only used gross measures to evaluate effects. However, these efforts provide limited insight into the impact of evidence-based management of affective comorbidity. Another significant limitation of existing approaches has been the

lack of a comprehensive array of tools to assist with the implementation of maximally tolerated dose and duration of treatment exposure prior to declaring treatment failure and or non-adherence to evidence based care. This presentation will discuss methods to monitor individual symptoms and describe tools used in recent "real world" clinical trials like the NIMH funded Sequenced Treatment Alternatives to Relieve Depression (STAR\*D). It is clear that interventions that are multi-dimensional and multi-faceted can be very effective if they are specifically targeted for clinical practice situations and incorporate flexibility that would allow clinical judgment for specific patient and or disease parameters. Most importantly, studies have also shown that these clinical tools are most useful when utilized at the point of care and during the clinical decision making process.

**REFERENCES:**

1. Rapaport MH: "Prevalence, recognition, and treatment of comorbid depression and anxiety." *J Clin Psychiatry* 64 (S24):6-10, 2001.
2. Greer TL, Trivedi MH. Comorbid depression and anxiety: Characteristics, functional consequences, and treatment considerations. *University of Virginia School of Medicine Reports on Psychiatric Disorders* 2005;2(2):1-8.

**MONDAY, MAY 22, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM  
29—PHARMACOTHERAPY OF  
PSYCHOTIC AND MOOD DISORDERS  
WITH CO-EXISTING MEDICAL ILLNESS  
Supported by AstraZeneca  
Pharmaceuticals**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to:

1. Discuss the evidence and clinical guidelines regarding the optimal use of antipsychotics to treat psychosis in patients with cardiovascular disease, diabetes, metabolic syndrome, cancer, HIV and lung disease.
2. Recognize the evidence and clinical guidelines regarding the optimal use of mood stabilizers to treat manic and depressive symptoms in patients with cardiovascular disease, obesity, cancer, HIV, and lung disease.
3. Apply the evidence and clinical guidelines regarding the optimal use of antidepressants in the treatment of depressive symptoms in patients with cardiovascular disease, obesity, cancer, HIV and lung disease.

**No. 29A****OPTIMAL SELECTION OF PHARMACOTHERAPY IN PSYCHOTIC AND MOOD DISORDERS WITH COEXISTING METABOLIC DISORDERS**

Henry A. Nasrallah, M.D. *University of Cincinnati Medical Center, Department of Psychiatry, 231 Albert Sabin Way, Cincinnati, OH, 45267-0559*

**SUMMARY:**

The prevalence of the metabolic syndrome in schizophrenia and bipolar disorder is high (40% according to the recent CATIE study findings). Thus, many patients have co-existing obesity, diabetes,

hypertension, and dyslipidemia. This high rate of metabolic comorbidities can complicate the management of schizophrenia and bipolar disorder, especially that agents widely used in those disorders may be associated with weight gain, hyperglycemia, and hyperlipidemia. Several of the atypical antipsychotics and mood stabilizers have been shown to have moderate to high metabolic adverse effects, but some are almost metabolically neutral. When there are co-occurring metabolic abnormalities in patients with schizophrenia or bipolar disorder, it is essential that practitioners screen their patients for personal or first degree family history of obesity, diabetes, dyslipidemia, and hypertension [as recommended by the ADA/APA consensus statement ], and then select the pharmacological agent(s) that have been demonstrated in controlled long-term trials to have the safest metabolic profile. This will protect the patients from aggravating their cardiovascular risk factors.

Finally, obesity often leads to obstructive sleep apnea and, therefore, iatrogenic weight gain may exacerbate or induce sleep apnea, which is another medical consideration when selecting a psychotropic that combines efficacy with safety for the metabolically high-risk patient.

#### No. 29B MANAGEMENT APPROACHES TO SCHIZOPHRENIA WITH CO-OCCURRING CANCER

Diana O. Perkins, M.D. *Univ. of North Carolina, School of Medicine, Department of Psychiatry, 252 Medical School Wing D, University of North Carolina, Chapel Hill, NC, 27599-7160*

##### SUMMARY:

Cancer rates of individuals with serious and persistent mental illness (SPMI) are different than that of the general population due to environmental and possibly genetic factors. Epidemiological studies find that individuals with SPMI are more likely than the general population to engage in behavior-based risk factors for cancer, including high alcohol consumption (increasing risk of oral cavity, pharynx, esophagus, liver, larynx, breast, endometrial, and kidney cancers), obesity (increasing risk of colorectal, breast, endometrial, and kidney cancers), tobacco use (increasing risk of oral cavity, pharynx, esophagus, pancreas, larynx and lung cancers), sedentary lifestyle (increasing the risk of colorectal cancer), and for women low parity (increasing risk of endometrial cancer). Although not well studied, antipsychotics may impact cancer risk. Several of the first generation antipsychotics may have anti-tumor effects and reduce multi-drug resistance in some tumors. In contrast there is strong evidence that prolactin may promote breast cancer cell growth, and emerging evidence of a similar effect on endometrial cancer. While risperidone, first generation antipsychotics, and to a very mild extent olanzapine and most serotonin re-uptake inhibitor antidepressants elevate prolactin, there is little systematic study of the impact of these drugs on cancer risk. Complicating the evaluation of cancer risk in individuals with schizophrenia is almost half a century of large epidemiological which in aggregate suggests that schizophrenia may be associated with a cancer protective factor.

Finally, cancer mortality in individuals with SMI may be impacted by delays in diagnosis and inadequate treatment related to poverty and to poor access to medical care. This presentation will focus on helping clinicians develop effective cancer prevention, recognition, and treatment strategies for this challenging and interesting group of patients.

#### No. 29C PHARMACOTHERAPY OF PSYCHOTIC AND MOOD DISORDERS IN THE CONTEXT OF THROMBOEMBOLIC DISEASE

Quinton E. Moss, M.D. *University of Cincinnati, Psychiatry and Family Medicine, 5573 Woodmansee Way, Hamilton, OH, 45011*

##### SUMMARY:

Both venous and arterial thromboembolic disease have been described in the context of the pharmacological treatment of psychotic and mood disorders. Venous thromboembolic disease can manifest itself in the form of deep venous thrombosis and pulmonary embolism whereas arterial thromboembolic disease can express itself in the form of cerebrovascular accidents ("strokes") and myocardial infarction ("heart attacks"). Individuals suffering from schizophrenia, bipolar disorder, and major depression have a higher risk of these diseases related to thromboembolic disturbance. The impact of antipsychotic, antidepressant, and mood-stabilizing medications on thromboembolic processes is now fairly well understood. Whereas SSRI's can inhibit platelet aggregation and thereby retard thromboembolic processes, certain antipsychotic agents can promote thromboembolic processes and thereby potentially increase the risk of thromboembolic diseases. Whereas the association between low-potency antipsychotic agents and venous thromboembolic disease is fairly well established, the association between second generation antipsychotic agents [SGAs] (other than clozapine) and venous thromboembolic disease is less clear. Although case reports and small case series do suggest such an association, controlled studies are sparse and these do not indicate an increased risk of venous thromboembolic disease in the context of treatment with non-clozapine SGAs. With regard to arterial thromboembolic disease (and cerebral and cardiac involvement), an indirect relationship via weight gain and metabolic disease is fairly established. It is also suggested that SGAs may increase the risk of cerebrovascular disease and this has resulted in many of them receiving a black-box warning on their product label in this regard. The relationship is, however, still not well characterized and findings inconsistent with regard to the association-relatively small clinical trials suggest an association whereas larger scale epidemiological studies do not support such a linkage. In this presentation, the effects of various psychotherapeutic medications on the thromboembolic system will be described, data on the association between various psychotherapeutic medications and principal thromboembolic diseases (DVT, pulmonary embolism, MI, and CVA) succinctly summarized. Implications for optimal pharmacological treatment of psychotic and major mood disorders in the context of thromboembolic disease will be discussed with regard to treatment selection, patient monitoring, role of preventive measures and prophylactic treatment.

#### No. 29D WHEN MENTAL ILLNESS IS COMPLICATED BY RESPIRATORY SYMPTOMS: MANAGEMENT IMPLICATIONS

Peter J. Weiden, M.D. *SUNY Downstate Medical Center, Department of Psychiatry, 450 Clarkson Avenue, Psychiatry - Box 1203, Brooklyn, NY, 11203, Michael Weiden, M.D.*

##### SUMMARY:

It is not well known that respiratory disorders are among the most frequent and serious of the excess in medical comorbidity observed in persons with serious mental illness (SMI). Respiratory symptoms in SMI carry several important treatment challenges. First, the risk factors leading to respiratory disorders (eg cigarette smoking) are more common and harder to change in SMI compared to general population. Second, because of the close neuronal relationship between CNS respiratory, autonomic, and fear centers, there is a great deal of overlap between psychiatric and respiratory symptoms. Third, the presence of the SMI makes it harder to treat the respiratory condition, and vice-versa.

Fortunately, there have been treatment advances for SMI and for common pulmonary disorders. Psychiatric clinicians now have more to offer for prevention and reduction of morbidity and mortality for those patients suffering from both types of disorders.

This presentation will integrate the perspectives of a psychiatrist and a pulmonologist who recently conducted a joint literature review of this problem. The presentation will cover the new advances in understanding the common risk factors and treatment implications for the most common comorbidities, including:

- Overview of smoking cessation strategies
- Reasons for excess mortality when asthma and SMI co-occur
- Changes in clinical presentation of obstructive sleep apnea (OSA) occurring in patients with SMI
- Assessment and management of respiratory presentations of EPS
- Our focus will be on covering management issues that are within the purview of the psychiatric practitioner, either directly or in partnership with a pulmonary physician.

**No. 29E**  
**WHEN HIV COMPLICATES SERIOUS PSYCHIATRIC DISORDERS**

Glenn J. Treisman, M.D. *Johns Hopkins University, Psychiatry and Behavioral Science and Internal Medicine, Meyer 119 Johns Hopkins Hospital, Baltimore, MD, 21287*

**SUMMARY:**

HIV; A Viral Epidemic Driven by Psychiatric Disorders  
 Psychiatric disorders play a role in both the behavioral risk factors for infection with the HIV virus and the inability to accept and comply with treatment recommendations for HIV. Serious mental illness (SMI), personality disorders, substance abuse disorders, and psychological problems all have increased prevalence in patients with HIV. (1) Patients with SMI are more likely to participate in unprotected sex with multiple partners and to use injected drugs of abuse (2). In addition to making one vulnerable to HIV infection, psychiatric disorders impair adherence to complex antiretroviral therapy. (3,4). Nonadherence increases the likelihood of a person developing drug resistant HIV (5). There is accumulating evidence that an active HIV infection in the nervous system may increase the development of and exacerbate mood disorders (6) The evidence is substantial that advanced HIV disease causes mania. Inadequately treated mania adversely affects adherence to treatment (1). People with SMI receive less HIV treatment, have poorer outcomes, and die earlier from the illness (7). Treatment of psychiatric disorders in HIV is effective, people respond to psychoactive medications well (8). Both HIV and the drugs which treat it complicate the choice of psychotropic agents including drug interactions and disease interactions (9, 10). Aggressive treatment of SMI in patients undergoing HIV treatment can increase adherence to treatment, help change high-risk behaviors, and increase response.

**REFERENCES:**

1. Nasrallah HA and Newcomer JW: Atypical antipsychotics and metabolic dysregulation. *J Clin Psychopharmacol* 2004; 24 (Supp 1) S7-S14.
2. 1) Perkins DO, Treisman GJ: Treating schizophrenia in patients with cancer. *Current Psychiatry* 2005, II (suppl): 1-11.
3. Tandon R: Pharmacologic treatment of schizophrenia in the context of thromboembolic disease. *Current Psychiatry II* (2005): 24-30.
4. 2) Weiden PJ, Weiden MD, Aneja J, et al: When schizophrenia is complicated by respiratory symptoms: Implications for pharmacologic therapy. *Current Psychiatry* 2005, II (suppl): 31-43.
5. Treisman, G. J., and Angelino, A: *The Psychiatry of AIDS: A Guide to Diagnosis and Treatment*. Johns Hopkins Press 2004.

**INDUSTRY-SUPPORTED SYMPOSIUM**  
**30—HELPING DEPRESSED PATIENTS**  
**ACHIEVE REMISSION: ADVOCACY FOR**  
**IMPROVEMENT**  
 Supported by Bristol-Myers Squibb  
 Company

**EDUCATIONAL OBJECTIVES:**

1. Recognize factors contributing to heterogeneity in response and remission and the implications for treatment outcomes.
2. Evaluate strategies for partial or non-responders that include switching, augmentation, and combination treatments
3. Examine the role of pharmacogenetics in treatment selection.
4. Design a treatment plan that utilizes non-pharmacologic and pharmacological strategies to achieve remission.

**No. 30A**  
**HETEROGENEITY IN RESPONSE AND REMISSION:**  
**IMPLICATIONS FOR OPTIMIZING TREATMENT**

A. John Rush, M.D. *University of Texas, SW Medical Center, Department of Psychiatry, 5323 Harry Hines Blvd., Dallas, TX, 75390-9086*

**SUMMARY:**

The treatment of depression aims to achieve and sustain symptomatic remission, because it is associated with better function and a better prognosis. However, no single treatment produces remission in more than half the patients. Consequently, multi-step treatment algorithms have been developed to improve outcomes utilizing augmentation or combination treatments and/or several switches to different treatments. The evidence to evaluate such algorithms will be presented. The use of combination (e.g., two medications or medication plus psychotherapy) has been suggested to create greater rates of remission. Results of these studies will be reviewed. Finally, achieving remission acutely is only the beginning of efforts to sustain remission over the longer-term. The long-term outcomes of depressed patients who entered 1-year follow-up after responding or remitting with an initial or subsequent treatment attempt will be reviewed. These long-term outcomes also document the heterogeneity of depressed patients in the likelihood of sustaining acute remission.

**No. 30B**  
**SWITCHING TREATMENTS: FOR WHOM AND TO**  
**WHAT EFFECT?**

Maurizio Fava, M.D. *Massachusetts General Hospital, Department of Psychiatry, 55 Fruit Street, Bulfinch 351, Boston, MA, 02114*

**SUMMARY:**

As many as 50% of depressed patients show only partial or no response to treatment with antidepressants, and failure to achieve response or remission is a common reason for switching antidepressant treatments. Similarly, intolerance or the presence of significantly burdensome side-effects may lead to treatment discontinuation and to switching antidepressant agents. The switching strategy involves substitution of another agent for the agent that has either caused intolerable side effects or has failed to induce the desired response. In clinical practice, switching to a different class of antidepressants is typically the most popular choice, although a substantial proportion of clinicians favor a switch within the same class. There is a clear paucity in the literature of studies comparing the efficacy of switching strategies in depression and, in particular, of the switch within the class vs. the switch to a different class. The Sequenced Treatment Alternatives to Relieve Depression (STAR\*D) trial provides a unique

opportunity to examine the effectiveness in real world settings of switch treatments at the second, third, and fourth treatment steps. This presentation will review both the STAR\*D results as well as the existing literature on the efficacy of switching antidepressants among depressed patients who have not tolerated or responded to antidepressant treatment. Finally, the presentation will discuss the available data suggesting the predictive role of specific clinical characteristics with respect to response to switching antidepressants.

**No. 30C  
OPTIMIZING ANTIDEPRESSANT TREATMENTS:  
USE OF AUGMENTATIONS AND COMBINATIONS  
TO ACHIEVE REMISSION**

Andrew A. Nierenberg, M.D. *Massachusetts General Hospital, 15 Parkman Street WACC 815, Boston, MA, 02114-3117*

**SUMMARY:**

Although a large number of treatment alternatives exist for depression, no one treatment is effective for everyone, and many patients with depression do not experience a satisfactory clinical benefit from their initial treatment. For various reasons including inadequacy of pharmacological management, less than 30% of patients benefit sufficiently (i.e., have a remission) from a first antidepressant trial. The remaining 70% (non-remitters and non-responders to the initial treatment) must move on to the "next step" where patients receive some alternative to the initial failed trial or more commonly either an augmentation or a combination of pharmacotherapy.

Many recent efforts including the Texas Medication Algorithm Project, NIMH funded STAR\*D project and NIMH funded REVAMP project all aim to determine the most effective treatment strategies for patients who do not benefit adequately (symptom remission) from initial treatment. The treatment protocols aim to determine and to implement an adequate dose and duration of medication (or psychotherapy) at every stage following the initial failed trial.

The most challenging task facing clinicians centers around choosing the best augmentation or combination of pharmacological and of psychotherapeutic treatments and addressing the clinical, pharmacodynamic, pharmacokinetic challenges with polypharmacy to ensure optimal care. Current evidence for efficacy of augmentations and combinations including the results of STAR\*D will be discussed.

**No. 30D  
PSYCHOTHERAPY: FOR WHOM AND TO WHAT  
EFFECT?**

Michael E. Thase, M.D. *University of Pittsburgh Medical Center, Department of Psychiatry, 3811 O'Hara St., Pittsburgh, PA, 152132593*

**SUMMARY:**

Several forms of psychotherapy have established efficacy for treatment of depression, but most of the data are derived from studies of less severely impaired outpatients. Moreover, although this segment of the population is the most likely to use mental health services (and thus efficacy data are very relevant to the public health), they are also the easiest to treat and might respond equally well to numerous other interventions. The proper role of psychotherapy for treatment of more severe depressive states continues to be a more contentious issue. This presentation will review more recent studies of psychotherapy and will focus on more severely or persistently depressed patient groups, including those with recurrent, chronic, treatment-resistant, and bipolar disorders. It is concluded that focused forms of psychotherapy are useful alternatives to pharmacotherapy for the easier to treat and increase the chances of response/remission and reduce the risk of relapse when added to adequate pharmacother-

apy. There is still too little data pertaining to alternate psychotherapies to conclude that one is the psychological treatment of first choice for patients with more severe and persistent mood disorders, although cognitive behavior therapy has been the most extensively studied.

**No. 30E  
PHARMACOGENETICS: CAN WE CUSTOMIZE THE  
TREATMENTS OF DEPRESSION?**

Roy H. Perlis, M.D. *Mass General Hospital, 15 Parkman St., Acc-815, Boston, MA, 02114-3117*

**SUMMARY:**

Many clinical challenges remain in the management of depression such as optimization of dose, control of adverse reactions, and poor response to pharmacological treatment. There is a paucity of evidence regarding clinical predictors of antidepressant response. The expanding field of pharmacogenetics provides new insights regarding the influences of genetics features on pharmacological response. As pharmacogenetic research accelerates, the potential for optimizing and customizing psychopharmacology to the individual patient increases. Understanding variations in the sequences of genes whose products are known to be targets of different drugs may provide clinicians with clues regarding response to treatment and the potential for side effects. In a study presented at the 2005 NCDEU, 246 cognitively intact patients with MDD, 65 years and older, were treated for 16 weeks with paroxetine or mirtazapine. Researchers found that the epoE4 allele was a predictor of antidepressant efficacy, whereas polymorphism in the 5HT2A gene was associated with side effects. This presentation will focus on aligning depressive subtypes into more complex categories based on genotyping. Examples of the role of pharmacogenetics in predicting response to AEDs in epileptic patients will be the model for the discussion on the subtyping of depression.

**REFERENCES:**

1. Trivedi, M.H., Rush, A.J., Crismon, M.L., et al.: Clinical results for patients with major depressive disorder in the Texas Medication Algorithm Project (TMAP). *Arch of Gen Psychiatry*, 61(7):669-680, 2004.
2. Fava M: Management of nonresponse and intolerance: switching strategies. *Journal of Clinical Psychiatry* 2000; 61 (suppl 2): 10-12.
3. Trivedi, M.H., et al. Clinical results for patients with major depressive disorder in the Texas Medication Algorithm Project. *Archives of General Psychiatry*, 2004;61(7):669-680.
4. Rush AJ, Thase ME: Psychotherapies for depressive disorders: a review. In: WPA Series Evidence and Experience in Psychiatry: Depressive Disorders, edited by Maj M, Sartorius N, Chichester, UK, John Wiley & Sons, Ltd., Volume 1, 1999, pp 161-206.
5. Murphy G. Pharmacokinetic and pharmacodynamic genetic predictors of antidepressant tolerability and efficacy. Poster presented at the 45th Annual Meeting of NCDEU, June 2005.

**INDUSTRY-SUPPORTED SYMPOSIUM  
31—UNDERSTANDING AND MANAGING  
THE TRANSITION OF ADHD FROM  
ADOLESCENCE TO YOUNG ADULTHOOD:  
THE MATURATION OF THE DISORDER  
Supported by Shire US, Inc.**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: Understand the clinical presentation of ADHD through young

adulthood, Appreciate the special considerations in the diagnosis and treatments of young adults with ADHD, and Learn new and emerging pharmacological treatments for adolescents and adults with ADHD.

**No. 31A  
IMAGING THE BRAINS OF ADHD ADULTS: NEW FINDINGS**

George Bush, M.D. *Massachusetts General Hospital, Psychiatric Department, MGH-East, CNY2614, Charlestown, MA, 02129*

**SUMMARY:**

Attention-deficit/hyperactivity disorder (ADHD) affects approximately 5% of school-age children, and often persists into adulthood. While intensive study using a variety of brain imaging techniques has begun to reveal some important facets of the neural underpinnings of ADHD in children and adults, relatively little is known about how brain changes during adolescence interact with the ADHD pathophysiologic process. Determining ADHD's underlying neurobiology is of major importance, and identifying transitional/maturational changes in brain structure/function during adolescence may eventually help minimize the persistence of ADHD deficits into adulthood. This presentation will review the current state of neuroimaging's contribution to understanding the maturing ADHD brain. It will highlight convergent evidence of changes in brain physiology of those with ADHD as they mature through adolescence, and describe how cognitive activation tasks may be used to help identify the developmental dynamics of ADHD pathophysiology.

**No. 31B  
ADHD 'NOT OTHERWISE SPECIFIED':  
CONCEPTUAL ISSUES**

Stephen V. Faraone, Ph.D. *SUNY Upstate Medical University, Dept. of Psych. and Behavioral Services, 750 East Adams St., Syracuse, NY, 13210*

**SUMMARY:**

The diagnosis of attention deficit hyperactivity disorder, not otherwise specified (ADHD NOS) is reserved for patients not meeting DSM ADHD criteria who show clinically significant signs of the disorder. This presentation reviews the application of this category to adolescents and adults with particular reference to two diagnostic ambiguities that can lead to the ADHD NOS diagnosis: subthreshold symptoms and late age at onset. New data are presented to assess the validity of subthreshold and late onset diagnoses. These data provide much support for the validity of late onset diagnoses but question the validity of cases that only meet subthreshold symptom criteria. Implications for clinical practice and for redesigning ADHD diagnostic criteria are discussed.

**No. 31C  
ADHD BEHIND THE WHEEL: DRIVING WITH ADHD**

Craig B. Surman, M.D. *Massachusetts General Hospital, Department of Psychiatry, 185 Alewife Brook Parkway, Suite 2000, Cambridge, MA, 02138*

**SUMMARY:**

**Objective:** Data indicate that drivers with ADHD experience poorer driving-related outcomes than non-ADHD individuals, including more traffic citations, at-fault motor vehicle crashes, and greater crash severity. This presentation will systematically evaluate studies of ADHD driving behavior, and discuss their implications for clinical treatment of individuals with ADHD.

**Methods:** A systematic review of studies evaluating the driving behaviors of ADHD subjects was conducted. Recent findings derived from prospective assessment of driving using questionnaires, driving simulators, and direct observation of driving skills were examined to understand patterns of driving deficits in adults with ADHD and the role of treatment in improving driving outcomes.

**Results:** Driving simulation studies have reported, inconsistently, more aberrant driving patterns in ADHD compared to non-ADHD drivers. Data from five prospective studies have shown general improvements in driving performance associated with stimulant treatment. A recent questionnaire study offers a preliminary description of ADHD subjects who may be at highest risk for poor driving outcomes. The implications of these data for documentation and clinical care of ADHD patients will be described.

**Conclusions:** ADHD is associated with driving performance impairment. Research has begun to characterize the nature of ADHD-related driving deficits and suggests that medication treatments may improve some forms of driving behavior.

**No. 31D  
ADHD GOES TO COLLEGE: PLANNING,  
PROTECTING AND PROSPERING**

Sharon B. Wigal, Ph.D. *University of California, Irvine, Pediatrics Department, 19722 MacArthur Blvd., Irvine, CA, 92697-4480*

**SUMMARY:**

Relatively little research has focused on college students diagnosed with attention deficit/hyperactivity disorder (ADHD). Yet practitioners are increasingly aware of this disorder persisting from childhood into adulthood. College students with ADHD present with more academic impairment, organizational difficulties, and social/personal issues than control students (Heligenstein et al., 1999). Topics to be discussed will focus on how to enable college students to access campus support services and handle special concerns that will help them succeed on campus.

**No. 31E  
EMERGING THERAPIES IN THE TREATMENT OF  
ADHD**

Timothy E. Wilens, M.D. *Massachusetts General Hospital, Department of Child Psychiatry, 55 Fruit Street, YAW 6900, Boston, MA, 02114*

**SUMMARY:**

**Objective:** With the increasing recognition and treatment of attention-deficit/hyperactivity disorder (ADHD), clinicians need to be familiar with new developments of pharmacotherapy in the treatment of this condition. Recently, there have been many advances made with a number of new medication indications, uses, preparations, and FDA-approval status for adults with ADHD. **Methods:** A systematic review of the recent literature identified new studies of stimulant isomers, various stimulant release mechanisms, and nonstimulants recently being used in adults with ADHD. These studies used DSM IV-diagnosed individuals in short-term clinical trials and simulated work environments using methodologically valid instrumentation for ADHD, including duration of treatment. Recently derived data on the adverse effects profiles of these agents are also reviewed. **Results:** Controlled clinical trials of new preparations of stimulants include a recent large multisite controlled study of a transdermal preparation of MPH that demonstrated significant short-term improvement in ADHD symptoms and functioning with duration of action proportionate to the wear-time of the patch. Similarly, recent trials with extended-release D-methylphenidate, modafinil, and OROS MPH show improvement in children, adolescents, and adults treated with active



medication compared to placebo. Pilot data from nicotinic agents are also promising. In general, both stimulants and nonstimulants were well tolerated in subjects with dry mouth, reduced appetite, and mild increases in blood pressure/pulse, as the most commonly observed. *Conclusion:* Under controlled conditions, new nonstimulant agents, novel delivery systems, and different preparations of existing compounds are now available and offer potential benefits over existing compounds in the treatment of ADHD.

#### REFERENCES:

1. Bush G, Valera EM, Seidman LJ. Functional neuroimaging of attention-deficit/hyperactivity disorder: a review and suggested future directions. *Biological Psychiatry* (In press).
2. Spencer, T. and L. Adler (2004). "Diagnostic approaches to adult attention-deficit/hyperactivity disorder." *Primary Psychiatry* 11(7): 49-56.
3. Barkley RA: Driving impairments in teens and adults with attention-deficit/hyperactivity disorder. *Psychiatr Clin N Am* 2004; 27:233-260.
4. Helgenstein, E, Guenther, G, Levy, A, Savino, F, Fulwiler, J: Psychological and academic functioning in college students with attention deficit hyperactivity disorder. *J Am Coll Health* 1999; 47:46-48.
5. Pelham, W. E., Manos, M. J., Ezzell, C. E., Tresco, K. E., Gnagy, E. M., Hoffman, M. T., et al. (2005). A Dose-Ranging Study of a Methylphenidate Transdermal System in Children With ADHD. *J Am Acad Child Adolesc Psychiatry*, 44, 522-529.

### INDUSTRY-SUPPORTED SYMPOSIUM 32—THE COGNITION, NEUROCIRCUITRY, AND DISABILITY INTERFACE: BRINGING EVIDENCE TO PRACTICE Supported by Cephalon, Inc.

#### EDUCATIONAL OBJECTIVES:

1. Illustrate the impact of genetics on the cognitive process
2. Describe the neurocircuitry of the brain driving executive dysfunction in schizophrenia, depression, and ADHD
3. Evaluate treatments that target neurotransmitters that may enhance executive function

#### No. 32A THE NEUROCIRCUITRY OF COGNITION

John H. Krystal, M.D. *Yale School of Medicine, Department of Psychiatry, 25 Park St., Room 613, West Haven, CT, 06516*

#### SUMMARY:

Neurocognitive deficits can occur in both schizophrenia and bipolar disorder, developing early and persisting throughout the course of illness. Patients with schizophrenia often present with generalized cognitive deficit and should be evaluated for functionality across specific domains, including perception, vigilance/sustained attention, sensory gating, memory, and problem solving/executive functions. Although studies correlate improvement in neurocognitive deficits with a decrease in negative symptoms, pharmacologic therapy has not been designed to improve cognitive function. The exact basis for cognitive impairment is poorly understood; however, the success of atypical antipsychotics in treating neurocognitive deficits may be explained by their ability to increase acetylcholine and dopamine in the prefrontal cortex. Even so, therapeutic choices remain controversial. Impairment in cognitive function is a primary cause of poor social and vocational outcomes in patients with schizophrenia. Improvement in neurocognitive deficits correlates with a reduction in

negative symptoms, and will give patients the chance to sustain long-term employment and reduce the economic burden on health systems. Exploration of cognitive deficits and their underlying pathology will be evaluated to enable the design of more effective treatment strategies for patients with schizophrenia.

#### No. 32B COGNITION: WHAT IS THE ROLE OF GENETICS?

Daniel R. Weinberger, M.D. *National Institute of Mental Health, Clinical Brain Disorders, 10 Center Dr., Rm. 4A-235, Bethesda, MD, 20892-1379*

#### SUMMARY:

Twin studies have shown that cognitive abilities are highly heritable. The sequenced human genome affords the possibility of identifying specific genes that account for this heritability. Here, recent studies that have found associations between common gene variants and specific cognitive processes are reviewed. Several principles for evaluating genetic associations with cognition will be discussed, including nonfunctional versus functional variations in genes, stratification confounds, small effects, and multiple comparisons. Further complications in interpretation arise because a single gene may impact multiple processes, multiple genes may impact a single process, and because multiple cognitive processes may be inter-correlated. Replicated findings involve associations between a COMT polymorphism and prefrontally-based executive functions, neurophysiology and a BDNF polymorphism, and temporal cortex-based declarative memory processes. These and other genetic associations to aspects of cognition will be reviewed.

#### No. 32C COGNITION, ATTENTION, AND EXECUTIVE FUNCTION: HOW DO THEY TRANSLATE IN OUR PATIENTS?

Philip D. Harvey, Ph.D. *Mt. Sinai School of Medicine, Department of Psychiatry, 1425 Madison Avenue, Room LA-42, New York, NY, 10029*

#### SUMMARY:

Functional impairments in schizophrenia are a major source of disability in the illness. These impairments appear to be multiply determined, with one of the most consistent predictors of impairment being cognitive impairments. The most salient predictors of impairments in everyday functioning appear to be deficits in attention, working memory, and executive functions, as well as episodic memory. Interestingly, these same areas of cognitive functioning appear to define vulnerability-related phenotypes for the illness. Thus, these impairments may be both reflective of vulnerability to development of schizophrenia and related conditions, as well as factors which mediate the severity of disability in those individuals who develop fully syndromal schizophrenia. This presentation will focus on the specific manifestations of impairments in these cognitive domains, both prior to the development of the illness and after the full syndrome develops. Also, the relationships between impairments in these domains of functioning and deficits in everyday skills deficits will be evaluated, as will other factors which may mediate the relationships between cognitive impairments in executive, attentional, working and episodic memory domains and real-world outcomes. The implications of these impairments for pharmacological and behavioral interventions, as well as early detection and prevention, will be evaluated.

No. 32D

**FROM BRAIN TO BEDSIDE: UNDERSTANDING THE CLINICAL INTERFACE OF COGNITION AND NEUROCIRCUITY OF DEPRESSION**

Boadie W. Dunlop, M.D. *Emory University School of Medicine, Mood and Anxiety Disorders Program, 1841 Clifton Rd., NE, 4th floor, Atlanta, GA, 30329*

**SUMMARY:**

The presence of cognitive dysfunction in major depression affects the level of impairment, treatment response and long-term course of the illness. Forms of cognitive dysfunction in major depression include thought process functions, such as attention, working memory and decision-making, and thought content components, such as excessive recollection of mood-lowering memories, and negative beliefs about the self, the future or the world. This presentation will review current theories of dysfunctional brain circuitry in major depression, and examine how these disruptions can affect the neurocircuits underlying cognitive functions. By integrating the neurobiology of depression with that of cognition, we may achieve new insights into the behavior and choices of depressed patients. Identifying the specific types of cognitive disturbance and their underlying biology may enable treatment providers to choose more rationally between psychotherapy and different pharmacotherapies for their patients.

No. 32E

**NOVEL TREATMENTS FOR COGNITIVE ENHANCEMENT: CAN DRUGS MAKE PEOPLE SMARTER?**

Trevor Robbins, Ph.D. *University of Cambridge, Experimental Psychology, Downing St., Cambridge, CB2 3EB, United Kingdom*

**SUMMARY:**

The search for effective pharmaceutical treatments for a range of human neurological and neuropsychiatric disorders ranging from Alzheimer's disease to schizophrenia, and attention deficit/hyperactivity disorder to acute brain injury, means that a large number of candidate treatments will be evaluated in the next period. The accompanying upsurge in the understanding of the functioning of neural networks and of the molecular cascades underpinning memory processes, means that we are closer to fundamental understanding of the brain processes sub-serving normal memory and cognition. Particular advances have been made in the area of neuromodulatory influences of classical monoamine and cholinergic systems on 'fronto-executive' functions. Moreover, it has become apparent that genetic polymorphisms in the normal population are associated with sub-optimal or supra-optimal functioning of certain neurotransmitter systems, and have already been shown to have impact on cognitive function. Thus, in theory, the cognitive functioning of even normal individuals may be enhanced by pharmacological treatment, in certain defined areas of cognition, under well-defined circumstances. This presentation will review evidence suggesting that such enhancement may well be feasible, although it is likely that such benefits will be accompanied by cognitive costs in other domains, given the difficulties of optimizing all forms of cognitive processing simultaneously. Finally, this presentation will consider the implications of possible cognitive enhancing effects of drugs such as the anti-narcoleptic agent modafinil, and consider the extent to which such effects may be secondary to actions on basic arousal mechanisms.

**REFERENCES:**

1. Jann MV: Implications for atypical antipsychotics in the treatment of schizophrenia: neurocognition effects and a neuroprotective hypothesis. *Pharmacotherapy* 2004;24(12):1759-1783.

2. Goldberg TE, Weinberger DR: Genes and the parsing of cognitive processes. *TRENDS in Cogn Sci* 2004;8:325-335.
3. Glahn DC, Therman S, Manninen M, Huttunen M, Kaprio J, Lonnqvist J, Cannon TD. Spatial working memory as an endophenotype for schizophrenia. *Biol Psychiatry*. 2003; 53:624-6.
4. Goldapple K, et al: Modulation of cortical-limbic pathways in major depression. *Arch Gen Psychiatry* 2004; 61:34-41.
5. Turner DC, et al: Cognitive enhancing effects of modafinil in healthy volunteers. *Psychopharmacology* 2003;165:260-269.

**INDUSTRY-SUPPORTED SYMPOSIUM 33—TAKING CONTROL OF NEGATIVE SYMPTOMS: THE NEXT STEP FOR IMPROVED PATIENT OUTCOMES IN SCHIZOPHRENIA**

Supported by Organon USA, Inc. and Pfizer, Inc.

**EDUCATIONAL OBJECTIVES:**

- After attending this symposium, the participant will be able to:
- Recognize that patients with schizophrenia can have prominent negative symptoms, which severely limit their functional outcomes.
  - Differentiate negative symptoms from cognitive, affective, and other independent symptom domains in schizophrenia.
  - Demonstrate understanding of the neuronal circuits thought to underlie negative symptoms.
  - Understand treatment strategies to reduce negative symptoms in patients with schizophrenia.
  - Utilize an informed approach to improve treatment of negative symptoms in patients.
  - Measure and monitor negative symptoms in patients to target best outcomes.

No. 33A

**RECOGNIZING NEGATIVE SYMPTOMS AND THEIR IMPORTANCE**

Joseph M. Pierre, M.D. *VA Greater LA Healthcare System LA, Psychiatry, 11301 Wilshire Blvd Building 210 Room 15, Los Angeles, CA, 90024*

**SUMMARY:**

Negative symptoms were originally considered the core deficit in schizophrenia, but with the arrival of conventional antipsychotics and revisions to diagnostic criteria, interest in negative symptoms waned. Positive and psychotic symptoms are easier to recognize and to treat, although negative symptoms have a greater impact on patient functioning and quality of life. Affective flattening, anhedonia, avolition, alogia, and psychomotor impairments severely limit the ability of patients to interact in society and lead full meaningful lives, no matter how well their positive symptoms are controlled. Worse negative symptoms at disease outset also predict worse long-term outcomes.

Despite increasing awareness of their importance, there is still disagreement about how precisely to define negative symptoms and whether this is a useful grouping of symptoms at all. Should primary negative symptoms be differentiated from secondary (those caused by drug treatment or other symptoms)? Should depressive and cognitive symptoms and motor retardation be considered negative? International experts recently discussed these important issues and agreed on a definition of negative symptoms, which will be presented.

Better recognition of negative symptoms in your patients, and recognizing their importance, will allow you to more reliably monitor

their disease severity and quality of life--a clear foundation for better patient care.

**No. 33B  
PSYCHOSIS CIRCUITS, NEGATIVE SYMPTOMS  
AND BRAIN IMAGING**

Steven G. Potkin, M.D. *University of California, Irvine, Department of Psychiatry and Human Behavior, Irvine Hall, 163, Irvine, CA, 92697-3960*

**SUMMARY:**

Deconstructing schizophrenia symptom domains into functional circuits is a useful approach to identify discrete domains and to improve targets for antipsychotic development.

Postmortem studies have revealed abnormalities in frontal and medial temporal cortices in brains of schizophrenia patients. These suggest impaired neurotransmission in hypothesized "psychosis circuits"-reciprocal connections between several regions (thalamus, basal ganglia, cingulate cortex) and frontal and temporal cortices. The neurotransmitters dopamine, glutamate, and GABA may be particularly important. Recent imaging work has taken this further to identify altered circuits and activity linked with negative symptoms. PET studies have shown that compared with patients with predominantly positive symptoms, negative symptom patients have reduced metabolic activity in the right hemisphere, particularly the temporal cortex and ventral prefrontal cortex. Negative symptom patients also have altered activity in cerebellar regions, which may cause reduced output from the cerebellum to thalamus and frontal cortex. One possible conclusion is that altered circuits are an attempt to compensate for a primary frontal deficit, in which these patients fail to activate cortico-cortical, cortico-striatal, and basal ganglia loop circuitry. In patients with negative symptoms, disruption in circuits from the cortex to thalamus, cerebellum, and back to the cortex may be particularly important. Understanding these circuits will help development of novel antipsychotics and optimize treatment with existing agents.

**No. 33C  
POSITIVE OUTCOMES WITH NEGATIVE  
SYMPTOMS: MEASURING AND MONITORING  
YOUR PATIENTS**

Dawn I. Velligan, Ph.D. *University of Texas H.S.C., Department of Psychiatry, 7703 Floyd Curl Drive, MS #7792, San Antonio, TX, 78229-3900*

**SUMMARY:**

A focus on the treatment of negative symptoms is essential in achieving the best possible outcomes for patients with schizophrenia and requires that clinicians be able to reliably measure and consistently monitor changes in negative symptoms. Important insight into clinically relevant strategies for tracking negative symptom progress can be gained through an understanding of the tools and techniques commonly used to monitor negative symptoms in clinical trials.

Psychometric rating scales used to assess negative symptoms in schizophrenia include the negative subscale of the Positive and Negative Symptom Scale (PANSS), the Schedule for the Assessment of Negative Symptoms (SANS), and the Negative Symptom Assessment (NSA). Each of these tools assesses slightly different aspects of negative symptomatology, maintains their own system for scoring symptom severity, and requires differing lengths of time to complete for a given patient. Potential advantages and disadvantages of these scales will be reviewed. While comprehensive in the clinical research setting, many negative symptom assessment scales have limitations with regard to their usefulness in monitoring patients within day-to-

day office visits. Practical advice for monitoring negative symptoms in your patients will be presented. In particular, emphasis will be placed on techniques for differentiating negative symptoms from neurocognitive, affective, and psychotic symptoms. Psychosocial approaches to obtaining best outcomes with negative symptoms will also be discussed.

**No. 33D  
TREATMENT OF NEGATIVE SYMPTOMS**

Hans-Juergen Moeller, M.D. *Ludwig-Maximilians-University, Department of Psychiatry, Nussbaumstrasse 7, Munich, D-80336, Germany*

**SUMMARY:**

With the earliest pharmacotherapy for schizophrenia the notion arose that negative symptoms could be secondary, at least to some extent, to treatment with classical neuroleptics. With the atypical antipsychotics, optimism about negative symptom treatment improved, and several key steps can improve negative symptoms in your patients.

The first step is to avoid conventional antipsychotics. The weight of evidence shows that atypical antipsychotics are better than conventional antipsychotics in avoiding secondary negative symptoms and in treating negative symptoms of the disease itself.

The second step is to optimize use of atypical antipsychotics. Correct dosing, adequate trials, and supplementing with psychosocial therapy maximizes therapeutic potential. Side effects can be minimized by using anticholinergics, weight management strategies, or better timing of doses. Although no one atypical antipsychotic has emerged from studies as consistently better than any other for negative symptoms, individual patients may respond better to one atypical, so switching can be beneficial.

Augmenting atypical antipsychotics with antidepressants, anxiolytics, and mood stabilizers can better target aspects of negative symptoms. Experimental approaches, such as augmenting atypicals with agents to improve glutamate function (e.g. D-serine), are also being explored.

Moeller HJ: Management of the negative symptoms of schizophrenia: new treatment options. *CNS Drugs*. 2003;17(11):793-823.

Better treatment of negative symptoms is a key goal of the next generation of antipsychotics. Available data for antipsychotics in development will be presented.

**REFERENCES:**

1. Milev P, Ho BC, Arndt S, Andreasen NC. Predictive values of neurocognition and negative symptoms on functional outcome in schizophrenia: a longitudinal first-episode study with 7-year follow-up. *Am J Psychiatry* 2005; 162:495-506.
2. Potkin, S.G., Alva, G.A., Fleming, K., Anand, R., Keator, D., Carreon, D., Doo, M., Jin, Y., Wu, J.C., Fallon, J.H. Distinguishing Negative Symptom Schizophrenia with Positron Emission Tomography. *American Journal of Psychiatry*, February, 159(2):227-.
3. Harvey PD, Green MF, Keefe RS, Velligan DI. Cognitive functioning in schizophrenia: a consensus statement on its role in the definition and evaluation of effective treatments for the illness. *J Clin Psychiatry* 2004;65(3):361-72.
4. I.Moller HJ: Antidepressive effects of traditional and second generation antipsychotics: a review of the clinical data. *Eur Arch Psychiatry Clin Neurosci* 2005;255(2):83-93.

TUESDAY, MAY 23, 2006

## INDUSTRY-SUPPORTED SYMPOSIUM 34—MANAGEMENT OF PSYCHOSIS IN THE ELDERLY: THE SCIENCE AND THE ART

Supported by Solvay Pharmaceuticals and  
Wyeth Pharmaceuticals

### EDUCATIONAL OBJECTIVES:

At the conclusion of the symposium the participants should be able to:

- (1) Make a diagnosis and differential diagnosis of psychotic disorders in elderly,
- (2) Treat psychotic disorders in elderly with appropriate pharmacotherapy,
- (3) Recognize adverse effects of medications in older persons, and
- (4) Use suitable psychosocial interventions in older psychotic patients.

### No. 34A EVALUATION OF PSYCHOSIS IN THE ELDERLY

Carl Salzman, M.D. *Harvard Medical School, Department of Psychiatry, 25 Shattuck Street, Boston, MA, 02115*

#### SUMMARY:

"The diagnosis of psychosis and determination of its etiology in the elderly can be difficult. Evaluation of a seemingly psychotic elderly individual must first determine whether a psychotic process is, in fact, present. Medical illness and medication must be considered as causes of psychosis. Characteristic paranoid thinking may be the result of delirium, dementia, as well as schizophrenia. Evaluating possible psychosis of an elderly individual, therefore, must consider medication, medical and physiologic status, and recent alterations in environment, as well as psychiatric illness. Careful evaluation will then lead to appropriate use (or avoidance) of medications which themselves may alter mental and behavioral function. This presentation will describe several examples of real-life elderly patients with psychotic disorders that illustrate the evaluation of characteristic psychoses in late life."

Jeste DV and Finkel SI: Psychosis of Alzheimer's disease and related dementias: Diagnostic criteria for a distinct syndrome. *American Journal of Geriatric Psychiatry* 8: 29-34, 2000.

Salzman C, (ed). *Clinical Geriatric Psychopharmacology*, Fourth Edition. Philadelphia, Lippincott Williams & Wilkins, 2005.

### No. 34B EFFICACY AND EFFECTIVENESS OF ANTIPSYCHOTICS IN THE ELDERLY

Lon S. Schneider, M.D. *University of Southern California, Keck School of Medicine, Psychiatry and the Behavioral Sciences, 1510 San Pablo St., HCC 600, Los Angeles, CA, 90033*

#### SUMMARY:

Over the last few decades, antipsychotic medication has been the mainstay of pharmacologic treatment of aggression, delusions, hallucinations, and agitation in elderly people with dementia. First generation antipsychotics such as thioridazine and haloperidol were initially used. Beginning in the mid 1990s the newer atypical antipsy-

chotics (i.e., risperidone, olanzapine, quetiapine, and aripiprazole) largely replaced these drugs in the US, although haloperidol is still used frequently throughout the world.

Reasons for this included dissatisfaction with conventional antipsychotics, their adverse events, perceptions of modest efficacy, and concerns about overuse. The new atypicals were considered preferable because of perceived greater safety and efficacy and the opinions of expert clinicians, yet until recently there had been no clinical trials efficacy evidence for their use.

A clinical trials evidence base has emerged over the last 6 years such that there is now a body of evidence that can be considered as a whole. Approximately 15, 6- to 12-week placebo-controlled, multi-center trials of atypicals, a few smaller scale studies and comparator controlled trials have been done. In addition there is a large NIMH effectiveness trial spanning 36 weeks comparing several atypicals in outpatient samples.

We are now at a point where we can systematically evaluate the overall effectiveness of atypicals for people with dementia. This presentation will review the efficacy and effectiveness evidence for antipsychotics. Their effects not only on symptoms but also on quality of life, caregiver burden, and health economics will be overviewed, and an assessment will be made of their use and place for treating dementia.

### No. 34C SAFETY OF ANTIPSYCHOTICS IN ELDERLY PATIENTS

Dilip V. Jeste, M.D. *University of California, San Diego and VA San Diego Healthcare System, Department of Psychiatry, 3350 La Jolla Village Drive, Bldg. 13, 4th Floor, San Diego, CA, 92161*

#### SUMMARY:

Considerations of safety are paramount in any age group, particularly in the elderly. This presentation will focus on data from published trials as well as new data from ongoing studies at UCSD on side effects of atypical antipsychotics in older people. The annual incidence of tardive dyskinesia with typical neuroleptics is very high (about 30%) in geriatric patients. The newer atypical antipsychotics have been shown to have a significantly lower risk of tardive dyskinesia than typical agents. At the same time, the studies have shown an increased risk of antipsychotic-associated metabolic side effects including diabetes and other components of metabolic syndrome, and also of cerebrovascular adverse events and mortality in individuals with dementia. A careful consideration of risk:benefit ratio of atypical antipsychotics as well as that of available alternative treatments is required in each patient, especially one with dementia. There are currently few suitable alternative treatments that have been shown in large-scale controlled trials to be both effective and safe in elderly psychotic patients. There is a need for a proactive approach to regular monitoring of the patients on antipsychotics. In the management of individual elderly patients, the watchwords should be clinical judgment, caution, and monitoring.

### No. 34D NOVEL ANTIPSYCHOTIC STRATEGIES: IMPLICATIONS FOR BIOLOGY AND FUTURE TREATMENT

P. Murali Doraiswamy, M.D. *Duke University, Department of Psychiatry, Trent Drive, DUMC Box 3018, Durham, NC, 27710*

#### SUMMARY:

This presentation will review off-label and investigational pharmacotherapies for treating psychosis in the elderly. Over two dozen drug candidates are being evaluated for antipsychotic properties in

adult or elderly subjects. Examples of investigational agents include D-serine, ampakines, NK3 antagonists, serotonin2A/2C antagonists, cannabinoid antagonists, neurotensin antagonists, erythropoietin, sigma-1 ligands and glycine transporter inhibitors. In addition, several marketed drugs such as acetylcholine esterase inhibitors (donepezil, rivastigmine, galantamine), NMDA antagonists (memantine, neramexane), mood stabilizers (valproate, lamotrigine) and glucocorticoid antagonists (mifepristone) are also being tested. The prospect of strategies with such diverse mechanisms raises the need to re-examine our nomenclature of antipsychotic drugs and offers potential for increasing our understanding of the neurochemistry and neurobiology of psychosis in the elderly. Selected data from these strategies will be summarized to illustrate these issues and their risk:benefit ratio for possible clinical use.

#### No. 34E

### NONPHARMACOLOGIC INTERVENTIONS FOR PSYCHOSIS IN THE ELDERLY

Warachal E. Faison, M.D. *Medical University of South Carolina, Alzheimer's Research and Clinical Programs, 5900 Core Road, Suite 203, N. Charleston, SC, 29406*

#### SUMMARY:

The anticipated rapid growth in the numbers of elderly patients with psychotic disorders will result in an increased burden on caregivers. Often elderly patients with psychosis are managed with psychotropics, especially atypical antipsychotics. Pharmacological treatments, however, have disadvantages due to increased vulnerability of the elderly to adverse side effects and drug-drug interactions. Given the recent FDA warnings attached to the atypical antipsychotic medications, these medications will need to be used judiciously and clinicians will need to increase their utilization of nonpharmacologic interventions in the management of psychosis in the elderly. Non-pharmacologic interventions have multiple advantages including the fact that they would allow for the evaluation of psychosocial and/or environmental stimuli, and also for enhanced care of the patients. This presentation will review various nonpharmacologic interventions in the management of psychosis in the elderly including but not limited to cognitive behavioral therapy, social skills training, staff/caregiver training, and environmental interventions. Data will also be discussed on the efficacy, safety, and limitations of nonpharmacologic interventions.

#### REFERENCES:

1. Jeste DV and Finkel SI: Psychosis of Alzheimer's disease and related dementias: Diagnostic criteria for a distinct syndrome. *American Journal of Geriatric Psychiatry* 8: 29-34, 2000.
2. Sink KM, Holden KF, Yaffe K. Pharmacological Treatment of Neuropsychiatric Symptoms of Dementia: A Review of the Evidence. *JAMA*. 2005;293(5):596-608.
3. Jin H, Meyer JM, and Jeste DV: Atypical antipsychotics and glucose dysregulation: A systematic review. *Schizophrenia Research* 71:195-212, 2004.
4. King C, Voruganti L. Whats in a name? The evolution of antipsychotic drugs. *J Psychiatry Neuroscience* 2002;27:168-175.
5. Granholm E, McQuaid JR, McClure FS, et al: A randomized, controlled.

### INDUSTRY-SUPPORTED SYMPOSIUM 35—MULTIPLE AND COMPLEX PRESENTATIONS OF BIPOLAR DISORDER

#### Supported by Abbott Laboratories

#### EDUCATIONAL OBJECTIVES:

1. To discern and differentiate between presentations of bipolar disorder.
2. To understand the subgroups in the bipolar spectrum, with emphasis on early diagnosis and individualized pharmacotherapy.

#### No. 35A

### PRESENTATIONS OF BIPOLAR DISORDER IN CHILDREN AND ADOLESCENTS

Kiki D. Chang, M.D. *Stanford University School of Medicine, Department of Psychiatry, 401 Quarry Road, Room 1114, Stanford, CA, 94305-5719*

#### SUMMARY:

Bipolar disorder is a serious and life-threatening psychiatric illness once thought to occur only rarely in childhood or adolescence. However, while there is limited information regarding the incidence in prepubertal children, data indicate that as many as 1% of adolescents are affected by bipolar disorder, and approximately 30% of adults with bipolar disorder report the onset of symptoms before age 15 years. Earlier age of symptom onset has been associated with more severe disease course, including increased rapid cycling, suicidal behavior, and psychiatric comorbidities. Recognizing and diagnosing pediatric bipolar disorder may be challenging, as the presentation can be especially complex due to age-dependent symptom presentation, the chronicity of symptoms, and the tendency to present with irritability or depressive symptoms. Furthermore, frequently associated comorbidities, including attention-deficit/hyperactivity disorder (ADHD), anxiety disorders, and substance use disorders, can make accurate diagnosis more complex. Finally, as we are realizing that a gradual, insidious onset of bipolar disorder is now the norm, clinicians may be faced with diagnosing children and adolescents who are still developing bipolar disorder and thus do not neatly fit any one diagnosis. It is therefore becoming increasingly important to recognize prodromal forms of early-onset bipolar disorder to better guide early intervention, which could ultimately lead to prevention or amelioration of the full disorder.

#### No. 35B

### THE IMPULSIVE-AGGRESSION SYMPTOM DOMAIN IN PERSONALITY DISORDERS

Eric Hollander, M.D. *Mount Sinai School of Medicine, Department of Psychiatry, 1 Gustave Levy Place, Box 1230, New York, NY, 10029*

#### SUMMARY:

Personality disorders are common, lifelong and associated with substantial morbidity, mortality and functional impairment. Impulsivity/aggression is a core behavioral symptom domain that cuts across several of the personality disorders, particularly the cluster b personality disorders such as borderline personality disorder (BPD). Cluster b personality disorders are frequently comorbid with the broader bipolar spectrum, and utilizing mood stabilizers target the affective instability domain, the impulsive-aggressive symptom domain, and the trauma related arousal domain in borderline personality disorder and cluster b personality disorders. Bipolar patients who also meet criteria for a personality disorder would also benefit on

dimensions of irritability, impulsivity, arousal and aggression with mood stabilizers. An understanding of the underlying neurobiology is helpful in the assessment and management of patients with complex and comorbid presentations.

## No. 35C

**BIPOLAR II DISORDER AND SUICIDAL BEHAVIORS**

William H. Coryell, M.D. *Univ of Iowa Carver College of Medicine, Department of Psychiatry, 2-205 Medical Education Building, Iowa City, IA, 52242-1000*

**SUMMARY:**

The distinction between bipolar II and other mood disorders is a relatively recent one and the condition is not yet well described. Evidence has emerged, though, that patients with bipolar II disorder spend a particularly high proportion of time in depressive states and that they attempt suicide more frequently than do patients with other mood disorders. This presentation will review the existing literature and will present new data from a large, 15-year follow-up to determine whether patients with bipolar II disorder differ from those with other major mood disorders by the likelihood or seriousness of suicide attempts, by the clinical variables predictive of completed suicide, or by the importance of chemical dependency in the risk for life-threatening behaviour.

## No. 35D

**PREDICTING MAINTENANCE RESPONSE FROM THE ACUTE EPISODE**

Charles L. Bowden, M.D. *University of Texas Health Science Center at San Antonio, Psychiatry, 7703 Floyd Curl Drive (Mail Code 7792), San Antonio, TX, 78229-3900*

**SUMMARY:**

Symptomatic, social and vocational morbidities consequent to bipolar disorder are principally driven by symptomatology below the level of a full episode. Characteristics of acute episodes, e.g., depressed vs manic or euphoric vs mixed, may be beneficially utilized to predict long-term outcome and guide treatment decisions. Most background characteristics do not influence illness course independent of treatment. Among the few that do are older age at time of treatment and onset of bipolar disorder after age 18. Three or more prior mood episodes and absence of psychotic symptoms were predictive of longer time to a depressive episode with divalproex than with lithium. Patients who were obese at study onset relapsed into depression with lithium treatment sooner than did non-obese patients. Dysphoric manic features predisposed patients to more side effects when treated with either divalproex or lithium than did euphoric mania. Recent blinded, randomized studies for divalproex, lamotrigine and olanzapine indicate that a positive response acutely is positively associated with subsequent maintenance efficacy.

Patients and family members often have erroneous assumptions about the benefits or risks of medications. Sufficient time spent to secure a patient's willingness to re-try a medication or counseling that they have deemed previously unsuccessful is often well spent.

**REFERENCES:**

- Geller B, Tillman R, Craney JL, Bolhofner K: Four-year prospective outcome and natural history of mania in children with a prepubertal and early adolescent bipolar disorder phenotype. *Arch Gen Psychiatry* 2004; 61:459-67.
- Hollander E, Swann AC, Coccaro EF, et al: Impact of trait impulsivity and state aggression on divalproex versus placebo response in borderline personality disorder. *Am J Psychiatry* 2005; 162(3):621-624.
- Bulik CM et.al.: Prevalence and comorbidity of affective disorders in persons making suicide attempts in Hungary: importance of the first depressive episodes and of bipolar II diagnoses. *J Affective Disorders* 2003; 76:113-119.
- Journal Article - Swann AC, Bowden CL, Calabrese JR, Dilsaver SC, Moris DD: Mania: differential effects of previous depressive and manic episodes on response to treatment. *Acta Psychiatrica Scandinavica* 2000; 101(6):444-451.

**INDUSTRY-SUPPORTED SYMPOSIUM  
36—TREATING THE EARLY STAGES OF  
SCHIZOPHRENIA****Supported by AstraZeneca  
Pharmaceuticals****EDUCATIONAL OBJECTIVES:**

Identify strategies to effectively manage patients in the early stages of schizophrenia.

Describe how genetic and clinical risk factors influence the onset, treatment response, and outcomes for patients with schizophrenia.

Recognize the impact of tolerability and adherence in treating first episode schizophrenia.

Formulate effective pharmacologic approaches to the treatment of prodromal schizophrenia.

Interpret the evidence of neuroprotection associated with the treatment of early stage schizophrenia.

## No. 36A

**GENETIC AND CLINICAL RISK FACTORS FOR  
SCHIZOPHRENIA: PREDICTING THE ONSET AND  
OUTCOMES OF THE ILLNESS AND TREATMENT  
RESPONSE**

Dolores Malaspina, M.D. *Columbia University-NY Psychiatric Institute, Department of Psychiatry, 1051 Riverside Drive, Unit #58, New York, NY, 10032*

**SUMMARY:**

Schizophrenia is a serious psychiatric illness that causes major disability and psychosocial impairment. Recent advances in neurobiology and psychosocial research have prompted considerations of schizophrenia from a preventative point of view. Risk factors for schizophrenia may include family history, older paternal age, and poor socialization, among many others, while potential risk markers include striated brain pathology, minor physical anomalies, eye-tracking dysfunction, abnormal ECG findings, and olfactory identification deficits. Ultimately, schizophrenia is multi-factorial in origin and probably results from the interaction of genetic susceptibility loci and environmental risk factors. Ongoing clinical research is seeking to discover more specific genetic markers with the hope of identifying patients who appear to be clinically at risk for psychosis. A rationale for preventative intervention is to minimize profound damage often evident at first episode schizophrenia. Preliminary studies suggest that preemptive treatment programs for high-risk patients lead to comparatively shorter durations of psychosis and better short-term clinical outcomes. With these studies, many in the field feel optimistic that early intervention will significantly add to the ability to treat what has remained, which is an often devastating and intractable disease.

## No. 36B

**TREATMENT OF FIRST EPISODE  
SCHIZOPHRENIA: TOLERABILITY AND  
ADHERENCE**

Delbert G. Robinson, M.D. *Zucker Hillside Hospital, Psychiatry, 75-59 263rd Street, Glen Oaks, NY, 11004-0038*

**SUMMARY:**

The long-term consequences of medication side effects are important for clinicians, first episode patients, and their families for making decisions about balancing the risks and benefits of acute and maintenance treatment with antipsychotics. The Mount Sinai Consensus Guidelines for Physical Health Monitoring of Patients with Schizophrenia identified four classes of second-generation antipsychotic side effects with medical consequences that are relevant to the treatment of first episode patients: metabolic side effects, elevated prolactin levels, motor side effects, and QT prolongation. Data about these classes of side effects from studies with first episode populations will be reviewed. Medication side effects also increase the risk that patients may stop treatment. Data from studies specifically addressing treatment adherence by first episode patients will be reviewed with an emphasis upon the role of side effects.

## No. 36C

**EVALUATION OF PRODROMAL SCHIZOPHRENIA**

Cheryl Corcoran, M.D. *Columbia University Medical Center, Columbia University Medical Center, New York, NY, 10032*

**SUMMARY:**

**Objective:** The prodromal period before the onset of psychosis in schizophrenia may be a key time for early identification and intervention to modify course and perhaps even delay or prevent onset of illness.

**Methods:** This will be a review of the current criteria for the schizophrenia prodrome, and a description of the latest findings on risk factors for and potential triggers of psychosis in vulnerable individuals, and the brain changes that may accompany the onset of psychosis.

**Results:** The schizophrenia prodrome or high risk state, as currently defined, has been associated with a 40-50% conversion rate to psychosis within 1-2 years, at multiple research sites. Defining criteria for the prodrome include attenuated or subclinical psychotic symptoms in young people and/or a decline in functioning in the context of genetic vulnerability. Common characteristics of the prodrome, although not part of the defining criteria, include dysthymia, anxiety, social dysfunction and cognitive deficits. Identified risk factors for psychosis among prodromal patients have included poor smell identification and verbal memory. Putative triggers of psychosis such as drug use in prodromal patients lead to worsening of symptoms and function. Some changes in brain volumes may also accompany the onset of psychosis.

**Conclusions:** Increasing understanding of the prodromal period of schizophrenia can shed light on the developmental pathophysiology of this illness, and may lead to the development of novel early interventions, both pharmacological and nonpharmacological.

## No. 36D

**PHARMACOLOGIC STRATEGIES FOR THE  
TREATMENT OF PRODROMAL SCHIZOPHRENIA**

Daniel C. Javitt, M.D. *New York University School of Medicine, 140 Old Orangeburg Rd, Nathan Kline Institute, New York, NY, 10954*

**SUMMARY:**

For many years, psychiatrists have been aware that subtle cognitive, emotional, behavioral, and functional deviations from norms are present in certain individuals even up to several years before the initial diagnosis of psychosis is made. However, early identification of individuals destined for schizophrenia remains complicated and, at present, is based solely on behavioral and genetic approaches. Furthermore, a growing body of evidence suggests that early intervention in patients with schizophrenia can improve long-term outcomes and possibly slow neurodegenerative changes. To date, early diagnosis strategies have relied primarily on behavioral measures. However, there is growing emphasis on development of biomarkers that may significantly refine early diagnosis. Candidate biomarkers, as well as strategies for biomarker development, will be discussed. Further, intervention strategies to date have been based primarily upon dopaminergic models of the disorder. More recent glutamatergic models, however, may provide a firmer basis for early intervention. This presentation will review current approaches and also discuss fewer potential intervention approaches based upon PCP/NMDA models of schizophrenia.

## No. 36E

**TREATMENT OF THE EARLY STAGES OF  
SCHIZOPHRENIA: THE POSSIBILITY OF  
NEUROPROTECTION**

Jeffrey A. Lieberman, M.D. *Columbia University Medical Center, Department of Psychiatry, 1051 Riverside Drive, Unit #4, New York, NY, 10032*

**SUMMARY:**

Cognitive impairment, which occurs in the early phases of schizophrenia and remains throughout the course of the illness, has been linked to reduced neuronal cell density and activity or neurodegeneration in specific brain regions. Thus, a theory has emerged that schizophrenia as well as other neurological and neuropsychiatric disorders may result from an underlying neurodegenerative process. A number of agents, including atypical antipsychotics, have demonstrated neuroprotective effects in preclinical models of schizophrenia. However, clinical evidence of neuroprotection in schizophrenia remains to be seen. During this presentation, the concept of neuroprotection in patients with schizophrenia will be explored, with a review of the available evidence suggesting a neuroprotective role for specific agents in the early stages of the disease.

**REFERENCES:**

1. Corcoran C, Malaspina D, Hercher L: Prodromal interventions for schizophrenia vulnerability: the risks of being fat risk. *Schiz Res* 2005; 73:173-184.
2. Robinson DG, Woerner MG, Alvir JM, et al: Predictors of medication discontinuation by patients with first episode schizophrenia and schizoaffective disorder. *Schizophr Res* 2002; 57:209-219.
3. Javitt DC, Coyle JT: Decoding schizophrenia. *Sci Am* 2004; 290:48-55.
4. Jann MW: Implications for atypical antipsychotics in the treatment of schizophrenia: neurocognition effects and a neuroprotective hypothesis. *Pharmacotherapy* 2004; 24:1759-1783.
5. Suggest Miller et al 1999 AND Corcoran et al (in *Psychiatric Quarterly*) the qualitative paper.

**INDUSTRY-SUPPORTED SYMPOSIUM  
37—ADVOCATING FOR CHANGE  
THROUGH EVIDENCE-BASED MEDICINE:  
A FOCUS ON ADHD**  
Supported by Cephalon, Inc.

**EDUCATIONAL OBJECTIVES:**

Link attentional deficits, impulsivity and hyperactivity to the neurocircuitry of ADHD.

Recognize the impact of sleep/wake disturbances on patients with ADHD.

Design a treatment plan that utilizes non-pharmacologic and pharmacological strategies to improve patient outcomes.

**No. 37A  
NEUROCIRCUITRY OF ADHD**

James J. Hudziak, M.D. *University of Vermont, Department of Psychiatry, B229 Given B, Burlington, VT, 05405-0001*

**SUMMARY:**

The hypothesis that altered dopamine transmission underlies hyperactive-inattentive behavior in children with attention-deficit/hyperactivity disorder (ADHD) is based on genetic studies and the efficacy of psychostimulants. Most previous positron emission tomography (PET) and single photon emission tomography (SPECT) studies have shown altered binding of dopamine markers in the basal ganglia. Other studies have revealed dysfunction of the prefrontal-subcortical system, often with greater involvement of areas of the right hemisphere. Some SPECT studies have identified decreased activity involving the temporal lobe and cerebellum in some children with ADHD, supporting the observation that the dysfunction in ADHD involves not only the frontal-subcortical circuits but also the integration of temporal lobe and cerebellar function in emotion, cognition, and motor planning. Yet, the functional role of the neurochemical disturbances that cause the symptoms of ADHD are still poorly understood. This symposium will review evidence-based data to support the various hypotheses relative to the neurocircuitry of ADHD and the effects of these alterations on symptomatology and treatment.

**No. 37B  
PHENOMENOLOGY AND DIAGNOSIS OF ADHD**

Christopher J. Kratochvil, M.D. *University of Nebraska Medical Center, Department of Psychiatry, 985581 Nebraska Medical Center, Omaha, NE, 68105-5584*

**SUMMARY:**

Attention Deficit Hyperactivity Disorder (ADHD) is the most common psychiatric diagnosis of childhood, affecting an estimated 4%-12% of the US school-age population, and two to three times more boys than girls. Currently, there is no "gold standard" or laboratory test to confirm the diagnosis of ADHD. Diagnosis is currently based on criteria from the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), which lists nine behavioral characteristics for the inattentive type and nine behavioral characteristics for the hyperactive-impulsive type. The neuropathology is not clear, but it appears to have a genetic component, affecting the genes governing dopamine receptors and dopamine transport. Numerous contributing biological and socioeconomic variables, including maternal substance use, exposure to lead paint, and food-related allergies have also been considered in the effort to explain probable cause, but there is not yet a clear picture as to which children develop

ADHD and why. Although medication is efficacious in many cases of ADHD, optimal treatment requires integrated medical and behavioral treatment. Early recognition and treatment prevent the development of more serious psychopathology in adolescence and adulthood.

**No. 37C  
THE IMPACT OF SLEEP/WAKE DISTURBANCES IN  
ADHD**

Judith Owens, M.D. *Brown University, 593 Eddy St., Potter Suite 200, Providence, RI, 02903*

**SUMMARY:**

The relationship between attention-deficit/hyperactivity disorder (ADHD) and sleep is a complex one which poses many challenges in clinical practice. Recent studies have helped to elucidate the nature of the brain mechanisms and neuromodulator systems underlying the theoretical associations among sleepiness, arousal, and attention. Studies of sleep disturbances in children with academic and behavioral problems have also underscored the role that primary sleep disorders such as Obstructive Sleep Apnea Hypopnea Syndrome play in the clinical presentation of symptoms of inattention and behavioral dysregulation. In addition, new methodologies used in examining sleep and sleep patterns in children diagnosed with ADHD have shed further light on the prevalence, type, risk factors for, and impact of sleep disturbances in these children. This presentation will review the multi-level relationships among sleep quality and quantity, neurobehavioral functioning, and the clinical syndrome of ADHD, and will synthesize what is currently known about the interaction of sleep and attention/arousal in children in order to propose possible underlying mechanisms, integrate more recent findings, and highlight important areas for future study. In addition guidelines will be provided for a clinical approach to evaluation and management of children with ADHD and sleep problems.

**No. 37D  
EVIDENCE-BASED PHARMACOTHERAPY OF  
ADHD**

Timothy E. Wilens, M.D. *Massachusetts General Hospital, Department of Child Psychiatry, 55 Fruit St., Warren 705, Boston, MA, 02114*

**SUMMARY:**

ADHD is one of the most prevalent neurobehavioral disorders in childhood. Medication has been shown fundamental in the treatment of pediatric ADHD. A review of the literature was undertaken to highlight evidence-based findings in the use of medication for children and adolescents with ADHD. Response rates, effect sizes, and adverse effect profiles of major classes of medication were evaluated with an emphasis on more recent findings. Over 300 controlled clinical trials of medications for ADHD exist. The bulk of studies are focused on school-aged youth with fewer in preschoolers and adolescents. Newer medications include various preparations of stimulants, noradrenergic agents (atomoxetine), arousal system modulators (modafinil), and an assortment of agents in development. All medications have unique adverse event profiles with specific monitoring recommendations. A number of new classes of medications or reformulations of existing medications are now available in the treatment of pediatric ADHD. Identifying ideal candidates for the specific medications remains unclear.



No. 37E

**ROLE OF FAMILY AND SOCIAL SUPPORT SYSTEMS IN THE MANAGEMENT OF ADHD**

Scott Kollins, Pharm.D. *Duke University Medical Center, Department of Psychiatry, 718 Rutherford Street, Durham, NC, 27705*

**SUMMARY:**

ADHD, by definition, results in significant impairment across a number of settings. Usually these domains include family and social functioning. Although a number of studies have supported the role of psychosocial interventions in managing ADHD and its related impairment, fewer empirical studies have examined the role of the family and social networks in facilitating the treatment of individuals with ADHD. The purpose of the present talk will be to explore how the family and social support networks can contribute to the management of ADHD. We will focus on two primary areas. First, we will discuss the role of the family and social networks in facilitating access to treatment, as well as adherence to and acceptance of pharmacological treatment. Second, we will address the critical role of the family in identifying and implementing psychosocial interventions for ADHD. In both cases, we will also highlight the differential role of the family and social support networks across the developmental span of the ADHD patient's life. In conclusion, we hope to provide important considerations for clinical work with ADHD patients, as well as to offer new directions for research.

**REFERENCES:**

1. Roman T, Schmitz M, Polanczyk G, et al: Attention-deficit hyperactivity disorder: A study of association with both the dopamine transporter gene and the dopamine D4 receptor gene. *Am J Med Genet* 2001;105: 471-478.
2. Clinical Practice Guideline: Treatment of the School-Aged Child with Attention-Deficit/Hyperactivity Disorder. *Pediatrics* 2001;108:1033-1044.
3. Owens J, Rosen C, Mindell J. Medication use in the treatment of pediatric insomnia: results of a survey of community-based pediatricians. *Pediatrics* 2003; 111(5):e628-e635.
4. Biederman J, Spencer T, Wilens T. Evidence-based pharmacotherapy for attention-deficit hyperactivity disorder. *Int J Neuropsychopharmacol.* 2004 Mar;7(1):77-97.
5. Bussing R, et al. Social networks, caregiver strain, and utilization of mental health services among elementary school students at high risk for ADHD. *J Am Acad Child Adolesc Psychiatry.* 2003;42:842-850.

**INDUSTRY-SUPPORTED SYMPOSIUM  
38—THE MAZE OF MOOD AND ANXIETY  
IN THE ELDERLY PATIENT: A CASE  
SERIES**

**Supported by GlaxoSmithKline**

**EDUCATIONAL OBJECTIVES:**

1. Identify comorbidities that may mimic mood and anxiety disorders
2. Recognize the over-arching relationship between depression and anxiety disorders in the elderly
3. Evaluate targeted non-pharmacologic and pharmacological strategies for the optimal treatment of mood and anxiety disorders in the elderly

No. 38A

**ACHIEVING A BETTER UNDERSTANDING OF THE NEUROBIOLOGY OF MOOD AND ANXIETY DISORDERS IN THE ELDERLY**

Eric J. Lenze, M.D. *University of Pittsburgh School of Medicine, Department of Psychiatry, 3811 O'Hara Street, Rm. E835, Pittsburgh, PA, 15213*

**SUMMARY:**

There are little data on the neurobiology of anxiety in the elderly patient, and we do not know how the biological and neurobiological underpinnings of late life anxiety differ from the anxiety in the middle-aged and younger populations. Therefore, conclusions about treatment that are drawn from younger populations may not hold true for older adults. We do know that the hypercortisolemia and dysfunction of the hypothalamic-pituitary-adrenal (HPA) axis associated with mood disorders have been attributed to a breakdown in the glucocorticoid-receptor-mediated negative feedback mechanism regulating HPA activity. Subcortical ischemic disease is highly prevalent in patients with late-life depression, which may predict poor antidepressant treatment outcomes. The neurocircuitry of mood symptoms in the elderly likely involves the orbital frontal cortex and disrupted connections to the amygdala. There is also evidence that the striatum is implicated in the development of late life depression. However, much more data are needed to elucidate the factors contributing to anxiety and mood disorders in the elderly. This interactive session will empower clinicians to seek more funding in this area, and to stay abreast of new findings that relate to the neurobiology of anxiety and mood disorders in this challenging, understudied population.

No. 38B

**THE IMPACT OF MEDICAL COMORBIDITY ON MOOD AND ANXIETY DISORDERS IN THE ELDERLY PATIENT**

Prakash S. Masand, M.D. *Duke University Medical Center, Department of Psychiatry, 110 Swift Ave., Durham, NC, 27705*

**SUMMARY:**

Advances in medical care have not only led to increased longevity but also to the elderly population living with medical illnesses for a longer period of time. Psychiatric disorders particularly mood and anxiety disorders are frequent in the elderly but often misdiagnosed, under diagnosed or inappropriately treated. Medical comorbidity is one of the major contributing factors to this diagnostic dilemma. For example, cardiovascular and respiratory symptoms of mood and anxiety disorders may be misdiagnosed leading to unnecessary workups. Conversely the coexistence of mood and anxiety disorders may impact morbidity and mortality of cardiovascular and cerebrovascular disorders among others. This presentation will explore the bidirectional comorbidity of medical illnesses and mood and anxiety disorders in the elderly including pharmacokinetic issues and implications for treatment.

No. 38C

**AN EVIDENCE-BASED APPROACH TO THE ACUTE MANAGEMENT OF MOOD AND ANXIETY DISORDERS IN THE ELDERLY POPULATION**

Warren D. Taylor, M.D. *Duke University, Department of Psychiatry, DUMC Box 3903, Room 3547, Blue Zone, Durham, NC, 27710*

## SUMMARY:

The elderly population is increasing rapidly and with it are the number of patients who require appropriate diagnosis and treatment of mental disorders. The recognition and diagnosis of mental disorders in the elderly is a large unmet need in this population, particularly given how medical disorders increase with aging, which may also increase the risk for depression and anxiety. Depression and anxiety are among the more common psychiatric disorders in later life, but are under-recognized and often inadequately treated in the older population. This is a significant issue as they are associated with significant disability, lower quality of life, and greater mortality risk. Additionally, medical comorbidity and risk of cognitive impairment make treating this population different than treating younger patients. Evidence supporting the efficacy and safety of pharmacotherapeutic interventions for depression and anxiety in this population will be discussed to promote awareness of evidence-based therapeutic strategies.

## No. 38D

**OPTIMIZING LONG-TERM TREATMENT IN OLD-AGE DEPRESSION**

Charles F. Reynolds III, M.D. *University of Pittsburgh, Department of Psychiatry, 3811 O'Hara St., Room E-1135, Pittsburgh, PA, 15213*

## SUMMARY:

Depression in old age often co-exists with symptoms of anxiety, chronic medical burden, and cognitive impairment. Because depression in later life is usually a recurrent and often chronic disorder, evidence regarding maintenance strategies to prolong recovery is needed to guide clinical practice. Such a need is particularly evident in the elderly person with first episode depression, where there is controversy about how long such patients should be treated and how they should be treated. We have just completed a federally sponsored investigation of maintenance paroxetine and monthly interpersonal psychotherapy with respect to their long-term efficacy in maintaining recovery from depression in single-episode late-life depression. We have also investigated moderators of long-term treatment response, such as coexisting anxiety, chronic medical burden, poor sleep quality, and cognitive impairment (including difficulties with executive function). This presentation will review these new outcome data on long-term efficacy and patient characteristics which influence long-term treatment response variability in old-age depression.

## REFERENCES:

1. Kessler RC, Chiu WY, Demler MA, Walters MS: Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey replication. *Arch Gen Psychiatry.* 2006;62:617-627.
2. Ferrari E. Cognitive and affective disorders in the elderly: a neuroendocrine study. *Arch Gerontol Geriatr Suppl* 2004;171-82.
3. Taylor WD, Doraiswamy PM: A systematic review of antidepressant placebo-controlled trials for geriatric depression: limitations of current data and directions for the future. *Neuropsychopharmacology.* 2004;29:2285-2299.
4. Alexopolous, GS. Remission in depressed geriatric primary care patients: a report from the PROSPECT study. *Am. J. Psychiatry.* Apr 2005;162:718-724.

WEDNESDAY, MAY 24, 2006

**INDUSTRY-SUPPORTED SYMPOSIUM 39  
PART 1—EMERGING EVIDENCE IN THE  
TREATMENT OF BIPOLAR DEPRESSION,  
PART 1****Supported by AstraZeneca  
Pharmaceuticals**

## EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to:

Review the management of patients with bipolar depression and how emerging evidence may impact the current paradigm.

Assess current guidelines for the treatment of bipolar depression and how to use these guidelines to achieve therapeutic success.

Explore strategies for the management of comorbid alcohol and drug abuse in patients with bipolar disorder.

Examine the neurobiology of bipolar disorder and how it relates to the management of patients with bipolar depression.

Analyze current clinical trial data regarding the treatment of patients with bipolar depression.

## No. 39A

**THE CLINICAL MANAGEMENT OF BIPOLAR  
DISORDER**

Frederick K. Goodwin, M.D. *George Washington University, Psychiatry and Behavioral Sciences, 7500 Old Georgetown Rd., Suite 601, Bethesda, MD, 20814*

## SUMMARY:

Bipolar disorder is characterized by the presence of manic or hypomanic episodes alternating with clinical depression and "mixed" episodes with concurrent manic and depressive features. While the presentation of mania is more dramatic and more easily recognizable than the depressive features of bipolar disorder, new evidence suggests that depression is the predominant mood state occurring earlier, more often, and persisting much longer than mania. Recent investigations have demonstrated significant morbidity and mortality associated with depression, establishing it as the greatest unmet medical need associated with bipolar disorder. Traditional approaches to the management of bipolar depression include mood stabilizers or a combination of mood stabilizers with conventional antidepressants. Some anticonvulsant drugs may improve mood, alertness, and social interaction in some bipolar patients. Indeed, lamotrigine, a third-generation antiepileptic, appears to have greater efficacy than other mood stabilizers in treating depression, and lamotrigine as monotherapy or in combination with lithium is now considered first-line treatment for bipolar depression. Atypical antipsychotics have shown some promise against both the manic and the depressive symptoms of bipolar disorder. New data from randomized, controlled studies of some atypical antipsychotics suggest that this drug class may present a promising new option in the treatment of bipolar depression.

## No. 39B

**HOW GUIDELINES INFLUENCE ACUTE AND  
LONG-TERM TREATMENT OF BIPOLAR  
DEPRESSION**

Robert M.A. Hirschfeld, M.D. *University of Texas, Dept. of Psychiatry & Behavioral Sciences, 301 University Boulevard, Galveston, TX, 77555-0188*

## SUMMARY:

Several treatment guidelines and algorithms have been published within the last several years which seek to inform treatment decisions regarding bipolar depression. This is fortunate because bipolar depression is frequently undiagnosed and/or misdiagnosed, leading to less than optimal outcomes. In 2002, the American Psychiatric Association Revision of the Practice Guidelines for the Treatment of Patients with Bipolar Disorder were published. In 2004 the International Consensus Group on Bipolar I Depression Guidelines were published. The TMAP: Update to the Algorithms for Treatment of Bipolar I Disorder will be published in 2005. This presentation will look for commonalities in recommendations for both acute treatment and maintenance treatment of bipolar depression. There are controlled data trials available for seven monotherapy agents in the acute treatment of bipolar depression, and there are data for at least four agents for prevention of breakthrough depressive episodes with maintenance therapy.

No. 39C

**TREATMENT OF ALCOHOL AND DRUG ABUSE IN BIPOLAR DISORDER**

Kathleen T. Brady, M.D. *Medical University of South Carolina, Institute of Psychiatry, 67 President St. PO Box 250861, Charleston, SC, 29425*

## SUMMARY:

Substance abuse is quite prominent in bipolar disorder. Most patients with bipolar disorder meet formal diagnostic criteria for a substance use disorder at some point in their lives. Moreover, the presence of substance abuse increases the severity of bipolar disorder, yet most treatment studies in bipolar disorder have not addressed the role of substance abuse. The increased impulsivity associated with both bipolar disorder and substance abuse can work against any single treatment modality, partially by reducing treatment compliance. Fortunately, pharmacological and behavioral treatments can have synergistic effects in this context. To achieve the goal of treating two mutually exacerbating disorders without worsening the course of either disorder requires vigilance and caution when prescribing pharmacotherapeutic agents. While controlled studies investigating bipolar patients with comorbid substance abuse are limited, the available data suggest that lower substance abuse is associated with improvement in mood symptoms; further, data in animals and humans suggest that anticonvulsants and second-generation antipsychotics may be more useful than lithium or first-generation antipsychotics in this population. Ultimately, effective treatment requires aggressive management of both problems.

## REFERENCES:

1. Lieberman DZ, Goodwin FK. Separate and concomitant use of lamotrigine,.
2. American Psychiatric Association. Practice Guideline for the Treatment of Patients with Bipolar Disorder (revision). *Am J Psychiatry*. 2002; 159(4 Suppl):1-50.
3. Moeller FG, Dougherty DM, Barratt ES, Schmitz JM, Swann AC, Grabowski J: Impact of impulsivity on cocaine abuse and retention in treatment. *J Subst Abuse Treat*. 2001; 21:193-198.

THURSDAY, MAY 25, 2006

**INDUSTRY-SUPPORTED SYMPOSIUM 39 PART 2—EMERGING EVIDENCE IN THE TREATMENT OF BIPOLAR DEPRESSION, PART 2****Supported by AstraZeneca Pharmaceuticals**

## EDUCATIONAL OBJECTIVES:

- At the conclusion of this symposium, the participant should be able to:
- Review the management of patients with bipolar depression and how emerging evidence may impact the current paradigm.
  - Assess current guidelines for the treatment of bipolar depression and how to use these guidelines to achieve therapeutic success.
  - Explore strategies for the management of comorbid alcohol and drug abuse in patients with bipolar disorder.
  - Examine the neurobiology of bipolar disorder and how it relates to the management of patients with bipolar depression.
  - Analyze current clinical trial data regarding the treatment of patients with bipolar depression.

No. 39A

**NEUROBIOLOGY OF BIPOLAR PATIENTS: WHAT DOES IT TELL US?**

Sophia Frangou, M.D. *Institute of Psychiatry, United Kingdom, Box P066 Crespigny Park, London, SE5 8AF, United Kingdom*

## SUMMARY:

Bipolar disorder is associated with modifications in central nervous system function, including brain circuits as well as intracellular signal transduction mechanisms. Neuroimaging methodologies employing magnetic resonance technology have recently allowed investigation of the neurocircuitry involved with bipolar disorder. This technology has provided biologically meaningful information on brain networks associated with bipolar disorder, and how alterations in these pathways may affect mood and cognition. Specifically, structural magnetic resonance imaging and magnetic resonance spectroscopy studies have demonstrated that brain abnormalities in patients with bipolar disorder are regional rather than global phenomena. Furthermore, functional evaluations have implicated particular brain regions and pathways in the pathogenesis of bipolar disorder. This presentation will address what is currently known about the neurobiology of bipolar disorder, and what this emerging field can tell health care providers about diagnosis and management.

No. 39B

**FUTURE TREATMENTS: REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION AND VAGUS NERVE STIMULATION IN BIPOLAR DEPRESSION**

Guohua Xia, M.D. *Case Western Reserve University, Department of Psychiatry, 11400 Euclid Ave., Suite 200, Cleveland, OH, 44106*

## SUMMARY:

Brain stimulation as an interventional psychiatric field is growing rapidly. Repetitive Transcranial Magnetic Stimulation (rTMS) and Vagus Nerve Stimulation (VNS) as two innovative treatment meth-

ods have been widely studied in the last decade. Many studies have suggested that rTMS and VNS have antidepressant effects. More and more data are accumulated to evaluate the efficacy and potential use in treatment of different mood disorders. The developments in these brain stimulation techniques have brought promising approaches in the interventional psychiatry.

This presentation will first discuss the principles and methodology of the rTMS treatment. The history and major milestones will be reviewed. Currently available studies about TMS in treatment of medicine-resistant depression in patients with bipolar disorder will be presented. The discussion will also cover some of the important data from studies on rTMS in treatment of unipolar depression. Then, the presenter will analyze the problems existing in current studies and talk about future efforts in improving the methodology to maximize the treatment effect of the new techniques.

Finally, the presenter will briefly explore the principles and methodology of VNS. We will review the major published studies on efficacy of VNS in treatment-resistant depression, specifically the research evidences that led to Food and Drug Administration's approval on its clinical use in severe treatment resistant major depression, in addition to the need of further study on the use of VNS in bipolar depression and promoting the growth of intervention psychiatry.

#### REFERENCES:

1. Haldane M, Frangou S. New insights help define the pathophysiology of bipolar affective disorder: neuroimaging and neuropathology findings. *Prog Neuropsychopharmacol Biol Psychiatry* 2004; 28:943-960.
2. George MS, et al.: A one-year comparison of vagus nerve stimulation with treatment as usual for treatment-resistant depression. *Biol Psychiatry*. 2005; 58:364-373.
3. Rohan M, et al.: Low-field magnetic stimulation in bipolar depression using an MRI-based stimulator. *Am J Psychiatry*. 2004; 161: 93-98.
4. Li X, et al.: Can left prefrontal rTMS be used as a maintenance treatment for bipolar depression? *Depress Anxiety*. 2004; 20:98-100.
5. Nahas Z, et al.: Left prefrontal transcranial magnetic stimulation (TMS) treatment of depression in bipolar affective disorder: a pilot study of acute safety and efficacy. *Bipolar Disord*. 2003;5:40-47.
6. George MS, et al.: A one-year comparison of vagus nerve stimulation with treatment as usual for treatment-resistant depression. *Biol Psychiatry*. 2005; 58:364-373.
7. Rush AJ, et al.: Effects of 12 months of vagus nerve stimulation in treatment-resistant depression: a naturalistic study. *Biol Psychiatry*. 2005; 58:355-363.
8. Rush AJ, et al.: Vagus nerve stimulation for treatment-resistant depression: a randomized, controlled acute phase trial. *Biol Psychiatry* 2005; 58:347-354.

**WEDNESDAY, MAY 24, 2006**

### INDUSTRY-SUPPORTED SYMPOSIUM 40 PART 1—BIPOLAR ILLNESS: THE ROAD TO REMISSION, PART 1

Supported by Bristol-Myers Squibb  
Company and Otsuka America  
Pharmaceutical, Inc.

#### No. 40A IS REMISSION ACHIEVABLE IN BIPOLAR DISORDER?

John L. Beyer, M.D. *Duke University School of Medicine, Psychiatry and Behavioral Sciences, 3101 Annandale Road, Durham, NC, 27710*

#### SUMMARY:

Achieving remission in bipolar disorder is critical due to the substantially increased risks of morbidity and mortality associated with this illness. With treatment, there is a high rate of remission. Within 2 to 4 years after an acute initial episode most patients do achieve full syndromal, symptomatic and functional remission.<sup>1,2</sup> Factors associated with decreased amount of time to remission include age of onset, severity of symptoms, and the use of antipsychotic, antidepressive and antimanic agents.<sup>1,2</sup> Therefore, in managing an acute episode of bipolar disorder, the selection of pharmacologic options for achieving remission may be guided by the patient's personal profile and differential rates of remission observed with pharmacotherapies.<sup>3</sup>

#### References:

1. Tohen M, Zarate CA, Jr., Hennen J, Khalsa HM, Strakowski SM, Gebre-Medhin P, Salvatore P, Baldessarini RJ. The McLean-Harvard First-Episode Mania Study: prediction of recovery and first recurrence. *Am J Psychiatry*. 2003;160:2099-2107.
2. Bromet EJ, Finch SJ, Carlson GA, Fochtmann L, Mojtabai R, Craig TJ, Kang S, Ye Q. Time to remission and relapse after the first hospital admission in severe bipolar disorder. *Soc Psychiatry Psychiatr Epidemiol*. 2005;40:106-113.
3. Yatham LN. Acute and maintenance treatment of bipolar mania: the role of atypical antipsychotics. *Bipolar Disord*. 2003;5 Suppl 2:7-19.

#### No. 40B ROADBLOCKS TO REMISSION IN THE BIPOLAR PATIENT

Prakash S. Masand, M.D. *Duke University Medical Center, Department of Psychiatry, 110 Swift Ave., Durham, NC, 27705*

#### SUMMARY:

While pharmacologic and non-pharmacologic approaches have demonstrated efficacy in achieving remission in patients with bipolar disorder, substantial roadblocks are confronted in disease management. Diagnosis can be obscured by cross-cultural influence on the experience and communication of symptoms, and by comorbidities common in this patient population, including substance use disorder and anxiety disorders. Furthermore, since patients often present with depression and may be reluctant to report previous manic or hypomanic episodes, bipolar disorder should always be considered in the differential diagnosis of depression.<sup>1</sup> Upon diagnosis, optimal pharmacotherapy should yield a balance between achieving remission, and prevention of nonadherence and relapse. Inadequate dosing may not relieve an acute episode or may predispose a patient to relapse. However, the side effects of medications limit medication dosing and also compromise medication adherence, a substantial problem among patients with bipolar disorder—up to 64% of patients with bipolar disorder do not fully adhere with pharmacologic treatment.<sup>2</sup> The presence of a general medical condition may also exacerbate the course or severity of bipolar disorder or complicate its treatment.

#### REFERENCES:

1. Tohen M, Zarate CA, Jr., Hennen J, Khalsa HM, Strakowski SM, Gebre-Medhin P, Salvatore P, Baldessarini RJ. The McLean-Harvard First-Episode Mania Study: prediction of recovery and first recurrence. *Am J Psychiatry*. 2003;160:2099-2107.
2. Keck PE, Jr. Defining and Improving Response to Treatment in Patients with Bipolar Disorder. *J Clin Psych*. 2004;65 Suppl 15:25-29.

THURSDAY, MAY 25, 2006

**INDUSTRY-SUPPORTED SYMPOSIUM 40  
PART 2—BIPOLAR ILLNESS: THE ROAD  
TO REMISSION, PART 2****Supported by Bristol-Myers Squibb  
Company**

No. 40A

**AN EVIDENCE-BASED APPROACH TO ACHIEVING  
REMISSION IN BIPOLAR ILLNESS**

Roger S. McIntyre, M.D. *University Health, Department of Psychiatry, Ctr for Addiction/Mental Health-Clarke Site 250 C, Toronto, ON, M5T 2S8*

**SUMMARY:**

Over the past decade, there has been substantial development in the pharmacotherapy of bipolar disorder. Several atypical antipsychotics are established as efficacious in mania, depression, and long-term prophylaxis.

Preliminary evidence suggests that some atypicals may also be efficacious for common comorbidities in bipolar populations eg anxiety disorders.

Evidence based treatment guidelines and expert consensus on the management of bipolar disorder recommends several atypicals as first line "mood stabilizing" treatments for the bipolar patient. Notwithstanding these important developments, the majority of persons with bipolar disorder remain symptomatic, functionally impaired and at risk for recurrence, chronicity, comorbidity and suicidal behaviour.

The goal in treating bipolar patients is to achieve a full remission across the multiple dimensions of this illness, reduce mortality and improve functioning. The majority of treated bipolar patients fail to achieve these goals with monotherapeutic approaches which invites the need for rational, combination polypharmacy and adjunctive psychosocial interventions to realize the best outcomes. This presentation will succinctly summarize the quality of evidence supporting the use of conventional mood stabilizing agents (eg lithium, divalproex) and compare these to novel therapies (eg atypical antipsychotics). Both monotherapy and combination studies will be reviewed and contrasted. Furthermore, the opportunities for synergism with effective combinations will be highlighted. Moreover, tolerability and safety concerns when combining atypical antipsychotics together and a clinically relevant review of potential drug interactions will be covered.

The overarching aim is to provide participants with a chronic disease model when managing bipolar disorder which operationalizes critical end points and provides the safest and most effective combination therapies.

No. 40B

**THE ROLE OF NONPHARMACOLOGIC THERAPIES  
IN ACHIEVING REMISSION**

Eduard Vieta, M.D. *Hospital Clinic, Department of Psychiatry, 123 Main Street, Barcelona, 321223, Spain*

**SUMMARY:**

Although genetic and biological factors are crucial in the pathophysiology of bipolar disorder, the importance of psychosocial factors in triggering or mitigating relapses through changes in circadian

rythms warrants the implementation of psychotherapeutic interventions. Psychoanalysis, psychoeducation, group therapy, family therapy, cognitive-behavioral therapy, and interpersonal therapy have been used in the long-term treatment of bipolar patients, but very few have established efficacy on their own in controlled clinical trials regarding hospitalization, recurrences or suicidal behavior, as medication alone does. However, psychoeducation and cognitive-behavioral techniques (CBT), either in group or individually, have started to yield the first positive results in high standard, controlled trials on the combination of medication plus psychosocial intervention versus medication alone. These approaches focus primarily on information, treatment compliance, early detection of relapse, and illness management skills. A key issue is to start psychoeducation or CBT when the patient is in remission, or at least has significantly improved from an acute episode, as shown by the effect sizes of the available controlled trials. CBT does not seem to work too much for cross-sectional symptoms, and its benefits are more likely to be noticed in the long-term. For this reason, the main components of CBT in bipolar disorder are the psychoeducational ones, giving further support to the psychoeducational model, that has been supported by at least three well-designed, positive randomized clinical trials. The involvement of the family is also crucial for a good outcome, but separate approaches are advised for patients and caregivers. At present time, and in face of current evidence, not adjuncting psychoeducation to patients and relatives to medication should be considered unethical, unless the patient is still too sick to benefit from this approach. Psychoeducation plays certainly a role in achieving remission, but an even greater one in maintaining remission.

**REFERENCES:**

1. McIntyre RS: Tolerability Profiles of Atypical Antipsychotics in the Treatment of Bipolar Disorder. *J Clin Psychiatry* 2005;66 Suppl 3:28-36.
2. Vieta E. Improving Treatment Adherence in Bipolar Disorder Through Psychoeducation. *J Clin Psychiatry*. 2005; 66 Suppl 1:24-29.

WEDNESDAY, MAY 24, 2006

**INDUSTRY-SUPPORTED SYMPOSIUM 41  
PART 1—NEW FRONTIERS IN  
DEPRESSION: PROVIDING SOLUTIONS  
TO UNMET NEEDS, PART 1****Supported by Solvay Pharmaceuticals and  
Wyeth Pharmaceuticals****EDUCATIONAL OBJECTIVES:**

To review the unmet needs in the diagnosis of major depressive disorder, by discussing the importance of often neglected painful physical symptoms, and the necessity of distinguishing unipolar depression from bipolar depression, including their treatment implications;

To show how imaging genetics is leading to an understanding of the circuits underlying the symptoms of depression, including the role of the serotonin transporter in regulating the cingulate-amygdala circuit;

To review the current approach to treating resistant depression, and also novel treatments for depression on the horizon.

No. 41A  
**GENETIC MECHANISMS OF MOOD AND  
 TEMPERAMENT**

Daniel R. Weinberger, M.D. *National Institute of Mental Health, Clinical Brain Disorders, 10 Center Drive, MSC 1379, Building 10, Room 4S-235, Bethesda, MD, 20892-1379*

**SUMMARY:**

Genetic studies of risk for anxiety and depression have implicated genetic variation in the 5-HT transporter gene as a risk factor, especially in the context of environmental adversity. Studies using neuroimaging of normal healthy humans have identified a potential mechanism of this association and of a genetic basis for human temperamental anxiety. Analysis of structural magnetic resonance images has shown that s allele carriers of the 5HTT genetic variation have reduced gray matter volume in limbic regions critical for processing of negative emotion, particularly perigenual cingulate<sup>7</sup> and amygdala<sup>8</sup>. fMRI during perceptual processing of threatening visual stimuli demonstrated that these structures are tightly coupled as a feedback circuitry implicated in the extinction of negative affect. This coupling was strongly modulated by 5HTT genotype with short allele carriers showing relative uncoupling of this circuit. Furthermore, the magnitude of this coupling inversely predicted almost 30% of variation in temperamental anxiety. These genotype-related alterations in the anatomy and function of an amygdala-cingulate feedback circuit critical for emotion regulation implicate a developmental, systems-level mechanism underlying normal emotional reactivity and genetic susceptibility for depression.

No. 41B  
**CHRONIC PAIN AND MAJOR DEPRESSION**

Alan F. Schatzberg, M.D. *Stanford University, Department of Psychiatry and Behavioral Sciences, 401 Quarry Road, Dept. of Psychiatry & Behavioral Sciences/Stanford, Stanford, CA, 94305-5717*

**SUMMARY:**

In recent years increasing attention has been paid to the significance of chronic pain in depression. The initial impetus came from the Consultation-Liaison subspecialty where the comorbid presentation is understandably common. More recently, there has been a renewed interest in this area with the observation in rodent and human studies that suggest that mixed uptake blockers seem to produce greater relief of both the symptoms of pain and depression than do agents that act on one neurotransmitter. In this presentation, we first review the data on the prevalence of comorbid pain and depression in primary medical settings. We then present data from 2 community-based samples by our group—one in 5 European countries and the other in California. In Europe, chronic pain was seen in 43% of subjects who met criteria for major depression. In California the number was slightly higher—53%. The sequencing of pain and depression is reviewed in the 2 studies. Last, we review data that point to possible efficacy of mixed uptake blockers in both chronic pain syndromes—e.g., diabetic neuropathic pain—as well as in major depression with comorbid painful physical symptoms.

**REFERENCES:**

1. Lukas Pezawas, Andreas Meyer-Lindenberg, Emily M. Drabant, Beth A. Verchinski, Karen E. Munoz, Bhaskar S. Kolachana, Michael F. Egan, Venkata S. Mattay, Ahmad R. Hariri, and Daniel R. Weinberger: 5HTTLPR polymorphism impacts human amygdala-cingulate.

2. Ohayon, M. M. and A. F. Schatzberg (2003). "Using chronic pain to predict depressive morbidity in the general population." *Arch Gen Psychiatry* 60(1): 39-47.

**THURSDAY, MAY 25, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 41  
 PART 2—NEW FRONTIERS IN  
 DEPRESSION: PROVIDING SOLUTIONS  
 TO UNMET NEEDS, PART 2  
 Supported by Solvay Pharmaceuticals and  
 Wyeth Pharmaceuticals**

**EDUCATIONAL OBJECTIVES:**

To review the unmet needs in the diagnosis of major depressive disorder, by discussing the importance of often neglected painful physical symptoms, and the necessity of distinguishing unipolar depression from bipolar depression, including their treatment implications;

To show how imaging genetics is leading to an understanding of the circuits underlying the symptoms of depression, including the role of the serotonin transporter in regulating the cingulate-amygdala circuit;

To review the current approach to treating resistant depression, and also novel treatments for depression on the horizon.

No. 41A  
**UNIPOLAR VERSUS BIPOLAR DEPRESSION:  
 DIAGNOSTIC AND THERAPEUTIC CHALLENGES**

James M. Martinez, M.D. *Baylor College of Medicine, Menninger Department of Psychiatry, 6655 Travis Street, Suite 560, Houston, TX, 77030*

**SUMMARY:**

Bipolar disorder is a common psychiatric illness that is often misdiagnosed as unipolar major depression, even by experienced clinicians. In a study by Hirschfeld and colleagues, the Mood Disorder Questionnaire (MDQ; a validated screening tool for bipolar disorder) was sent to more than 125,000 adults in the United States. Of the responders with positive screens on the MDQ, the adjusted prevalence rate for bipolar disorder was 3.7%, and 31.2% of individuals who screened positive on the MDQ had been previously diagnosed with unipolar depression. Accurate diagnosis of bipolar disorder is critical to patient outcomes, as treatment approaches for depressive episodes in patients with bipolar disorder differ from those in patients with major depressive disorder. This task is challenging because the signs and symptoms of depression are often identical in unipolar and bipolar depression, and major depressive episodes may be the first syndromal expression of a bipolar illness. Additionally, depressive symptoms are often the most prominent and predominant symptoms during the longitudinal course of bipolar disorder. This presentation will discuss clinical tips for the differential diagnosis of unipolar and bipolar depression, including the confounds of agitation and anxiety. Discussion of treatments, based on practice guidelines and randomized controlled trials, will follow.

No. 41B  
**CURRENT AND NOVEL TREATMENT OPTIONS  
 FOR TREATMENT-RESISTANT DEPRESSION**

Lauren B. Marangell, M.D. *Baylor College of Medicine, Department of Psychiatry, 6655 Travis Street, Suite 560, Houston, TX, 77030*

**SUMMARY:**

Regrettably, treatment-resistant depression (TRD) occurs in approximately 20 % of patients with major depression, when defined as failure to respond to 2 or more antidepressants. Clinical considerations include inadequate initial treatment, comorbid medical and psychiatric disorders. For patients with true nonresponse and for those who achieve only partial response, pharmacologic treatment options include using an augmentation or combination strategy and switching to another antidepressant. Augmentation involves adding another agent that is not an antidepressant, such as lithium, psychostimulants or more recently atypical antipsychotics. Combination treatment refers to combining two antidepressants with different mechanisms of action to produce synergistic effects. Whether to switch, augment, or combine depends on many factors, including the severity of illness, side effects of the current medication, and the patient's willingness to take more than one medication. For example, if a patient's illness is significantly interfering with daily function, augmentation or combination should be considered if the current antidepressant is well tolerated because this may result in a quicker response. On the other hand, a patient with a milder illness, significant side effects of the current medication, and a general uneasiness about taking medication will probably be better off if the current medication is switched to a different, single antidepressant. Nonpharmacological options also should be considered in patients who have not adequately responded to treatment, including psychotherapy and electroconvulsive therapy. This presentation will systematically review treatment options, based on controlled clinical trials, for patients with major depression who have not remitted with initial therapeutic approaches.

**REFERENCES:**

1. Hirschfeld RMA, Calabrese JR, Weissman MM, et al.: Screening for bipolar disorder in the community. *J Clin Psychiatry* 2003; 64:53-59.
2. McPherson S, Cairns P, Carlyle J, Shapiro DA, Richardson P, Taylor D.

**WEDNESDAY, MAY 24, 2006**

**INDUSTRY-SUPPORTED SYMPOSIUM 42  
PART 1—WHAT THE PSYCHIATRIST  
NEEDS TO KNOW ABOUT SLEEP-  
RELATED MOVEMENT DISORDERS,  
PART 1**

**Supported by GlaxoSmithKline**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to:

Assess the burden of restless legs syndrome (RLS) and periodic limb movements of sleep (PLMS) on a patient's quality of life through a better understanding of the epidemiology, diagnostic features, and consequences of these disorders.

Differentiate between RLS and PLMS and other clinical "mimic" disorders, and assess the presence of coexisting sleep disorders, based on an understanding of clinical presentation and risk factors.

Formulate effective treatment strategies for patients with RLS, with or without PLMS, based on the efficacy and safety of available pharmacologic and nonpharmacologic therapies.

Tailor treatment strategies that improve outcomes of special populations of patients with RLS, including those with major depression.

**No. 42A**

**DIAGNOSIS, EPIDEMIOLOGY AND NATURAL  
HISTORY OF RESTLESS LEGS SYNDROME AND  
PERIODIC LIMB MOVEMENTS OF SLEEP**

Philip M. Becker, M.D. *University of Texas Southwestern Medical Center at Dallas, Department of Psychiatry, 8140 Walnut Hill Lane, #100, Dallas, TX, 75231*

**SUMMARY:**

Restless legs syndrome is a central nervous system disorder affecting approximately 10% of the US population. Prevalence usually increases with age, with the mean age of diagnosis being 34 years. Risk factors include age, gender (especially older females), positive family history, pregnancy, uremia, and low iron stores.

Diagnostic criteria, as defined by the Consensus Conference on Restless Legs Syndrome that was held at the NIH in 2003, include the urge to move the limbs (often accompanied by uncomfortable or unpleasant feelings in the limbs), precipitation or worsening by rest or inactivity, alleviation of symptoms with movement/getting up, and worsening of symptoms at nighttime. Patients with medical conditions other than RLS sometimes appear to satisfy the four core RLS criteria. These mimic conditions may include leg cramps, neuroleptic-induced akathisia, positional discomfort, local leg pathology, or peripheral neuropathy. To distinguish RLS from other conditions, clinicians should first be cognizant of the typical RLS presentation.

The discomfort associated with RLS is a major cause of sleep disturbance. Patients have difficulty falling asleep and experience decreased duration of sleep, resulting in daytime fatigue. Additionally, approximately 80-90% of RLS patients will have more than 5 Periodic Limb Movements of Sleep (PLMS) per hour, which are potentially associated with sleep disruption and daytime fatigue.

Although RLS is common, relatively easily diagnosed, and is associated with substantial sleep disturbance, one study found that less than two-thirds of individuals with moderate RLS had consulted a physician about their symptoms, and less than 10% had been diagnosed with RLS. As a result of misunderstanding of RLS diagnosis by healthcare providers, individuals with RLS may be identified as having depression or anxiety, and then become reluctant to pursue further evaluation or treatment.

Improvements in understanding the cardinal features of RLS, its underlying etiology, risk factors, and differential diagnosis will enable physicians to better manage this common, but frequently underdiagnosed, disorder.

**No. 42B**

**SLEEP, HEALTH, AND QUALITY OF LIFE  
CONSEQUENCES**

R. Robert Auger, M.D. *Mayo Clinic College of Medicine, 200 First Street S.W., Mayo Sleep Disorders Center-Eisenberg 8G, Rochester, MN, 55905*

**SUMMARY:**

Restless legs syndrome (RLS) has a substantial impact on the quality of life (QOL) of afflicted patients. Some of the most troublesome symptoms include disrupted sleep, hours of nocturnal restlessness, and intense discomfort, leading to daytime fatigue, poor functioning, and impaired social interactions. Patients with RLS also experience cognitive problems, such as concentration impairment, which worsen with increasing disease severity. Depression and anxiety are observed in about one-third to half of all patients with this condition, and recent data have demonstrated a relationship between insomnia and the onset of psychiatric and medical disorders.

In a recent study using the SF-36 to evaluate QOL, RLS patients were impaired in almost all domains. The degree of impairment was

similar to that seen in several other serious chronic illnesses, including diabetes, hypertension, congestive heart failure, and chronic obstructive pulmonary disease.

Pharmacologic treatment of RLS can improve sleep and daytime functioning and, ultimately, QOL. Careful use of psychiatric medications is indicated, as some of these may precipitate or exacerbate RLS and periodic limb movements of sleep. Educating patients about steps to improve sleep hygiene can also be beneficial, as sleep deprivation can aggravate the condition. Given the overlap of psychiatric illness, psychiatrists play an important role in the recognition of this disease. Education of practitioners regarding its core symptoms, as well as its effects on QOL, should lead to an enhancement of appropriate therapeutic intervention in suffering patients.

#### No. 42C

### DIAGNOSTIC CHALLENGES AND INITIAL TREATMENT STRATEGIES

Cynthia L. Comella, M.D. *Rush University Medical Center, 1725 W. Harrison Street, Suite 755, Chicago, IL, 60612*

#### SUMMARY:

There are several conditions that may mimic RLS. These include akathisia, positional discomfort, local leg pathology, peripheral neuropathy, leg cramps and painful legs, moving toes. Although these conditions may satisfy one or more of the diagnostic criteria for RLS, most will not meet all the criteria. In contrast to RLS, there will not be a family history, and with the exception of akathisia, the administration of dopaminergic agonists will not alleviate the symptoms. Akathisia is defined by an inner sense of restlessness that may be more generalized, rather than focused in the legs. The symptoms of akathisia occur at rest and improve with activity, but often do not follow the predictable circadian pattern of RLS and may occur at any time of the day. Akathisia is most frequently associated with the use of dopamine receptor blocking drugs, such as the typical antipsychotics agents, but is also described associated with Parkinson disease, typically as a feature of waning medication effects. Peripheral neuropathy and arthritic conditions in the legs are described as painful. Although these conditions may worsen in the evening, both are not consistently alleviated by movement, and may worsen with walking. Leg cramps typically have a sudden onset with pain and muscle spasm that may be palpable. Painful legs and moving toes (PLMT) is a rare disorder marked by pain in the legs and feet and fanning movements of the toes. The pain is often described as severe, and the toe movements are involuntary. This disorder does not have a circadian pattern, and will be present during the day. Paresthesias may occur in a foot or leg after prolonged sitting. These are relieved by changing position, and infrequently occur when lying down. To distinguish RLS from other conditions, clinicians should first be aware of the typical RLS presentation.

#### REFERENCES:

1. Earley CJ: Restless Legs Syndrome. *N Engl J Med.* 2003;348:21:2103-2109.
2. Winkelman JW: Restless Legs Syndrome. In: *Sleep Disorders and Psychiatry (Review of Psychiatry Series, Vol 24, Number 2; Oldham JM and Riba. series editors), edited by Buysse DJ, 1st edition, 2005, pp139-162.*

THURSDAY, MAY 25, 2006

### INDUSTRY-SUPPORTED SYMPOSIUM 42 PART 2—WHAT THE PSYCHIATRIST NEEDS TO KNOW ABOUT SLEEP- RELATED MOVEMENT DISORDERS, PART 2

Supported by GlaxoSmithKline

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to:

Assess the burden of restless legs syndrome (RLS) and periodic limb movements of sleep (PLMS) on a patient's quality of life through a better understanding of the epidemiology, diagnostic features, and consequences of these disorders.

Differentiate between RLS and PLMS and other clinical "mimic" disorders, and assess the presence of coexisting sleep disorders, based on an understanding of clinical presentation and risk factors.

Formulate effective treatment strategies for patients with RLS, with or without PLMS, based on the efficacy and safety of available pharmacologic and nonpharmacologic therapies.

Tailor treatment strategies that improve outcomes of special populations of patients with RLS, including those with major depression.

#### No. 42A

### RESTLESS LEGS SYNDROME AND PSYCHIATRIC DISORDERS: DEMONSTRATING A RELATIONSHIP

John W. Winkelman, M.D. *Brigham & Women's Hospital, Psychiatry Sleep Center, 1400 Center Street, Suite 109, Newton Center, MA, 02459*

#### SUMMARY:

The medical comorbidity of restless legs syndrome (RLS) and depressive and anxiety disorders has been recognized since the 19th century, when the disorder was termed 'anxietas tibiarius.' More recently, this association has been verified in four independent population-based studies and 9 clinical studies, each of which have shown significantly higher rates of depression and/or anxiety symptoms in individuals with RLS than in controls. The association between RLS and depression/anxiety symptoms is likely a complex one; and because the epidemiologic studies supporting this association are cross-sectional and thus correlational, multiple explanations for this relationship exist. Each of these potential hypotheses will be explored in this symposium including central dopaminergic mechanisms regulating mood. In addition to describing the psychiatric aspects of RLS, the effects of antidepressants on RLS and the associated movement disorder, periodic leg movements of sleep, will be described. Finally, potential treatment approaches to patients with RLS and depression/anxiety symptoms will be discussed.

#### No. 42B

### CURRENT THERAPEUTIC AND MANAGEMENT STRATEGIES IN RESTLESS LEGS SYNDROME

Clete A. Kushida, M.D. *Stanford University, Center for Excellence for Sleep Disorders, 401 Quarry Road, Suite 3301, Stanford, CA, 94305*

#### SUMMARY:

Substantial progress has been made over the past decade in our understanding of the medical and psychiatric correlates, underlying



pathophysiology and genetics, and treatment of restless legs syndrome (RLS) and periodic limb movement of sleep (PLMS).

Nonpharmacologic treatment strategies include discontinuing exacerbating drugs (such as dopamine antagonists, tricyclics, SSRIs and antihistamines), establishing a regimented sleep-wake schedule, minimizing late-day caffeine and nicotine, and reducing daytime naps and nighttime exercise. However, nonpharmacologic treatments have generally failed to consistently provide significant relief and there are virtually no controlled studies on nonpharmacologic interventions.

The mainstays of treatment for RLS and PLMS are pharmacologic agents. Symptomatic treatment of RLS is driven by considerations of age, severity, and symptom frequency. Other factors considered are medication dose, timing, and frequency; augmentation (increasing severity of symptoms) and rebound (return of symptoms); and the need for combination therapy.

First-line pharmacologic agents for treating RLS and PLMS are dopaminergic agonists (DAs). DAs relieve symptoms in 70% to 100% of RLS patients and reduce the frequency of PLMS and have longer durations of action and less risk of augmentation or rebound than levodopa. These agents include two ergot-derived agents, bromocriptine and pergolide, and two nonergot medications, pramipexole and ropinirole. The value and use of these dopaminergic agents, which have become first-line therapy for RLS, will be described. Their effects on the cardinal symptoms of RLS at night and during the day, their effects on sleep quantity and quality as well as on PLMS will also be described. In particular, the multiple large studies on ropinirole, the only FDA-approved treatment for patients with RLS, will be described. Finally, the common side effects observed with these agents will be clarified. The appropriate use of second-line treatments for restless legs syndrome, including benzodiazepines, opiates, and anticonvulsants will be explained.

Since depression is reported at higher rates in patients with RLS and some antidepressants (especially SSRIs) improve the depression but aggravate RLS and PLMS, treatment of patients with comorbid RLS and mood/anxiety disorders is a challenge. Treatment algorithms for such patients will be explored.

RLS and PLMS are generally underrecognized, underdiagnosed, and undertreated. By methodically targeting symptoms, RLS patients (including those with PLMS) are likely to achieve stable therapy within 3 to 6 months. It is important for psychiatrists to recognize RLS and PLMS and to provide appropriate therapeutic intervention in order to improve the well-being of patients afflicted with these disorders.

#### REFERENCES:

1. Picchietti DL, Winkelman JW: Restless legs syndrome, periodic limb movements in sleep, and depression. *Sleep*. 2005;28(8):752-759.
2. Hening W, Walters AS, Allen RP, et al: Impact, diagnosis and treatment of restless legs syndrome (RLS) in a primary care population: the REST (RLS epidemiology, symptoms, and treatment) primary care study. *Sleep Med*. 2004;5:237-246.

## WEDNESDAY, MAY 24, 2006

### INDUSTRY-SUPPORTED SYMPOSIUM 43—WHAT IS THE ROLE OF SOMATIC AND PHYSICAL SYMPTOMS IN DEPRESSION?

Supported by Wyeth Pharmaceuticals

#### EDUCATIONAL OBJECTIVES:

At the end of the symposium, participants will become familiar with the somatic and physical symptom presentations of depression

and their prognostic value. They will also understand the role played by neurotransmitter systems in the pathophysiology of these symptoms. Finally, they will become familiar with the diagnostic and management approaches to depressed patients with physical and somatic symptoms, particularly among depressed patients with comorbid medical illnesses.

#### No. 43A THE NEUROBIOLOGY OF SOMATIC AND PHYSICAL SYMPTOMS IN DEPRESSION

Pedro L. Delgado, M.D. *The University of Texas Health Science Center at San Antonio, Department of Psychiatry, 7703 Floyd Curl Drive, San Antonio, TX, 78229-3900*

#### SUMMARY:

There is a well established clinical relationship between major depression and heightened perception and complaints of painful physical symptoms. Research suggests that the relationship between pain and depression is multifaceted, involving alterations in key neurotransmitters and multiple areas of the brain as well as the spinal cord. This presentation will review the current knowledge of the brain systems involved in mediating the symptoms of major depression and brain and spinal cord systems modulating sensitivity to and tolerance of painful physical sensations. The function of specific neuroanatomic circuits, key brain areas, and neurotransmitter systems involved will be reviewed.

#### No. 43B PAIN AND OTHER SOMATIC SYMPTOMS AND THEIR RELATIONSHIP TO ANTIDEPRESSANT TREATMENT OUTCOME

George I. Papakostas, M.D. *Massachusetts General Hospital, Department of Psychiatry, 15 Parkman Street, WACC#812, Boston, MA, 02114*

#### SUMMARY:

Despite the multitude of antidepressants currently available, approximately half of all patients treated for depression do not experience full remission of symptoms. In addition, until recently, very little was known regarding which clinical characteristics or biological markers confer and increased likelihood of poorer response to standard antidepressant treatment for Major Depressive Disorder (MDD). Identifying predictors of clinical response could be useful in helping clinicians and patients select the appropriate intervention. Ultimately, the ability to select an intervention that has higher chances of success could spare patients from unwanted side effects and hasten clinical recovery. A growing number of studies suggest that the presence of a greater burden of somatic (physical) symptoms of depression, including pain, among outpatients with MDD may confer an increased risk poorer outcome during the acute as well as long-term treatment of MDD with conventional antidepressants. In this presentation, we will review the evidence for the relationships between the presence of physical symptoms during the depressive episode and antidepressant treatment outcome, including recent data linking remission to fewer somatic symptoms than response without remission.

#### No. 43C DIAGNOSTIC CHALLENGES IN MEDICALLY ILL PATIENTS WITH DEPRESSION

Donna E. Stewart, M.D. *University Health Network, Women's Health Program, 200 Elizabeth St. EN 7- 229, Toronto, ON, M5G 2C4, Canada*

**SUMMARY:**

Depression has been estimated to occur in 15-50% of medically ill patients. However many common medical conditions present with symptoms such as fatigue, insomnia and appetite and weight loss that are also common in depression. To make the problem even more difficult, some drugs used in the treatment of medical illnesses cause depression as a side effect. Differentiating which medically ill patients suffer from depression, in addition to their physical condition, poses a complex clinical challenge.

Medical conditions such as ischemic heart disease, neurological disorder, musculoskeletal disorders, renal disease, endocrine disorders, gastrointestinal conditions, cancer, HIV, pulmonary disease, organ transplantation, and reproductive system disorders present particular challenges in diagnosing co-morbid depression. Moreover failure to diagnose depression in these groups of patients may result not only in suffering and poor quality of life, but also longer hospital stays and heightened morbidity and mortality.

This presentation will discuss recent literature on co-morbid depression in medically ill populations and discuss strategies to increase the detection and treatment of depression through the use of brief screening instruments and non-threatening, emotion-focused, empathic lines of enquiry and discussion.

No. 43D

**MANAGEMENT ISSUES IN THE TREATMENT OF DEPRESSION WITH COMORBID MEDICAL DISORDERS**

Jonathan E. Alpert, M.D. *Massachusetts General Hospital, Department of Psychiatry, 50 Staniford Street, Suite 401, Boston, MA, 02114*

**SUMMARY:**

Major Depressive Disorder (MDD) frequently co-occurs with other medical disorders that have particular implications for treatment safety and efficacy. Based upon a steadily growing body of knowledge, this presentation will highlight pharmacokinetic processes (absorption, distribution, metabolism, and excretion) relevant to antidepressant pharmacology and how these processes are altered by medical conditions including hepatic, renal and cardiovascular disorders. In addition, pharmacodynamic factors will be considered in terms of the rational selection of antidepressants based upon knowledge of individual patient populations and the known pharmacological effects of medications. The interaction of psychotropic medications with other prescribed and over-the-counter agents will be reviewed with special attention to ubiquitous interactions that have potential clinical significance for response and adverse events and the rare but catastrophic interactions that need to be avoided. In view of the large number of depressed patients with comorbid medical conditions and the expanding range of pharmacological and non-pharmacological treatment options available, familiarity with emerging knowledge of pharmacokinetics and pharmacodynamics is increasingly relevant to the optimal treatment of depression.

No. 43E

**ARE ALL ANTIDEPRESSANTS EQUALLY EFFECTIVE IN THE TREATMENT OF SOMATIC AND PHYSICAL SYMPTOMS IN DEPRESSION?**

Maurizio Fava, M.D. *Massachusetts General Hospital, Department of Psychiatry, 55 Fruit Street, Bulfinch 351, Boston, MA, 02114*

**SUMMARY:**

Major Depressive Disorder (MDD) is a disease consisting of emotional/psychological and physical symptoms. Emotional symptoms have been shown to respond to currently available antidepressants; however, physical and somatic symptoms may not be as responsive,

as they have been shown to be the most common residual symptoms among depressed patients who have responded to antidepressant treatment. Improvement in physical symptoms has also been shown to be associated with higher remission rates even after accounting for improvement in core emotional symptoms, suggesting the importance of treating physical symptoms in order to achieve full remission. Given the significant evidence for abnormalities of the norepinephrine (NE) and serotonin (5-HT) neurotransmitter systems in depressive disorders and the modulating role in pain and other somatic symptoms of these two neurotransmitter systems, it has been hypothesized that antidepressants that affect NE and 5-HT neurotransmission such as tertiary amine tricyclic antidepressants (TCAs) and serotonin norepinephrine reuptake inhibitors (SNRIs) may be more efficacious than selective serotonin reuptake inhibitors (SSRIs) in the treatment of somatic and physical symptoms in MDD. Unfortunately, most clinical trials have not adequately assessed somatic symptoms, given the emphasis placed on psychological symptoms by most depression rating scales. This presentation will review the available double-blind studies that have attempted to compare the effects of various antidepressant treatments on physical and somatic symptoms.

**REFERENCES:**

1. Delgado PL. (2004) Common pathways of depression and pain. *J Clin Psychiatry* 65(supplement 12):16-19.
2. Papakostas GI, Petersen TJ, Iosifescu DV, Summergrad P, Sklar-sky KG, Alpert JE, Nierenberg AA, Fava M: Somatic symptoms as predictors of time to onset of response to fluoxetine in major depressive disorder. *J Clin Psychiatry* 2004; 65(4): 543-6.
3. Arolt V, Rothermundt M. Depression in medical patients. *Adv Psychosom Med.* 2004;26:98-117.
4. Alpert JE, Fava M, Rosenbaum JF: Psychopharmacological Issues in the Medical Setting. In *MGH Handbook of General Hospital Psychiatry*, 5th ed, edited by Stern TA, Fricchione GL, Cassem NH, Jellinek MS, Rosenbaum JF, Phila, Mosby, 2004, pp 231-267.
5. Fava M. The role of the serotonergic and noradrenergic neurotransmitter systems in the treatment of psychological and physical symptoms of depression. *J Clin Psychiatry.* 2003;64 Suppl 13:26-9.

**INDUSTRY-SUPPORTED SYMPOSIUM  
44—DIAGNOSING AND TREATING  
ALCOHOL DEPENDENCE IN THE OFFICE  
Supported by Alkermes, Inc. and  
Cephalon, Inc.**

**EDUCATIONAL OBJECTIVES:**

1. At the conclusion of this symposium, the participant should be able to discuss treatment setting(s) and chronicity of disease.
2. At the conclusion of this symposium, the participant should be able to discuss screening and diagnosis.
3. At the conclusion of this symposium, the participant should be able to review relevant underlying neurobiology current and emerging treatment options.
4. At the conclusion of this symposium, the participant should be able to review treatment options.
5. At the conclusion of this symposium, the participant should be able to review clinical issues in key comorbidities.

No. 44A

**ALCOHOLISM AS A CHRONIC DISEASE: IMPLICATIONS FOR OFFICE-BASED TREATMENT**

A. Thomas McLellan, Ph.D. *Treatment Research Institute, 600 Public Ledger Boulevard, 150 S. Independence Mall West, Philadelphia, PA, 19106*

**SUMMARY:**

Alcohol dependence is a highly prevalent and often chronic condition. On a global basis, alcoholism accounts for about as much death and disability as tobacco use and hypertension combined. Alcohol may cause or exacerbate chronic illnesses and symptoms such as insomnia, depression, and hypertension. However, unlike other chronic conditions alcoholism is not insured, treated or monitored in a manner consistent with good clinical practice. The presentation will discuss the basis for comparing alcoholism to other chronic diseases and review research linking "unhealthy alcohol use" to exacerbation of other somatic and mental illnesses. The presentation will also offer guidelines for psychiatrists working in office-based settings to assess, motivate, monitor and manage alcohol dependence in much the same way as chronic depression, anxiety and adjustment disorders are managed. This model is called concurrent recovery monitoring (CRM) and derives from psychotherapy evaluation work of Howard and Lambert and from the Wagner and Bodenheimer clinical management model of chronic diseases.

**No. 44B****SCREENING, DIAGNOSIS, AND EARLY INTERVENTION**

Kathleen T. Brady, M.D. *Medical University of South Carolina, Institute of Psychiatry, 67 President Street, Charleston, SC, 29425*

**SUMMARY:**

The psychiatrist's office provides an excellent setting for screening and early detection of high-risk alcohol use. This is particularly relevant because of the high comorbidity between alcoholism and a number of psychiatric illnesses commonly seen in outpatient settings. In general, attempts to construct "psychological profiles" of substance abusers have failed. However, there are several reliable and valid self-report measures available to assist in screening for alcohol use problems. Indeed, the literature supports the use of formal screening instruments over other clinical measures to increase the recognition of alcoholism in the primary care setting. However, many health care providers still do not routinely screen patients for alcohol or drug problems. The consequences can be problematic as alcohol use can complicate both the assessment and treatment of a number of psychiatric disorders. This presentation will focus on the use of diagnostic and screening instruments for alcohol dependence and their application in office-based psychiatric practice. The issue of biological testing, such as urine and blood alcohol screening, will be discussed. Issues arising in special populations will also be addressed.

**No. 44C****CURRENT AND EMERGING TREATMENT OPTIONS IN ALCOHOLISM**

Richard N. Rosenthal MD, *St. Luke's-Roosevelt Hospital Center, Department of Psychiatry, 1090 Amsterdam Avenue, 16th Floor, New York, NY, 10025*

**SUMMARY:**

Recent research has begun to reveal the neurobiological underpinnings of alcohol abuse and dependence. Animal studies are pointing to the importance of specific brain regions in the "neurocircuitry" of alcohol preference, dependence, and withdrawal. These studies, as well as some data in humans, suggest that a variety of neurotransmitters, neuromodulators, and secondary messenger systems are crucially involved in alcohol-related disorders. In particular, the GABAergic, glutamatergic, dopaminergic, and endogenous opioid systems appear to mediate many alcohol-related behaviors. Inferences from such preclinical work have led to the development of novel clinical treatment options that have been tested or are being

tested in clinical trials. Older "aversive" pharmacotherapeutic strategies have had limited impact due to issues of safety and adherence. At the same time, a variety of psychosocial interventions continue to play valuable roles in the treatment of alcohol abuse and dependence. This presentation will focus on the neurobiology and neurocircuitry of alcoholism. It will relate the findings of the studies mentioned to clinical strategies relevant to office-based psychiatric practice. We will also discuss the optimal integration of pharmacological, "12-step," and other psychosocial treatments for alcoholism, including strategies to improve treatment adherence.

**No. 44D****OFFICE-BASED TREATMENT OF CO-OCCURRING PSYCHIATRIC DISORDERS**

Shelly F. Greenfield, M.D. *McLean Hospital, Department of Psychiatry, 115 Mill Street, McLean Hospital, Belmont, MA, 02478*

**SUMMARY:**

The recognition and treatment of co-occurring psychiatric disorders in alcohol-dependent patients are critical in the office-based care of these individuals. Roughly 20% to 70% of psychiatric patients have a co-occurring substance use disorder, and rates of substance abuse among patients with psychiatric disorders are high. Alcohol dependence is prevalent in patients with depression, bipolar disorder, and anxiety disorders such as post-traumatic stress disorder. Co-occurring psychiatric disorders in alcohol-dependent patients has been associated with poorer post-treatment prognosis including shorter time to relapse and fewer consecutive abstinent months. In addition alcohol dependence often contributes to decreased adherence to pharmacotherapy and poorer prognosis of the other psychiatric disorder. Psychiatric patients with dual or multiple diagnoses require a carefully integrated treatment plan, incorporating both pharmacological and psychosocial components. Organizational barriers may impede diagnosis, referral, and treatment. This presentation will review recent clinical data on co-occurring disorders and will suggest an integrated therapeutic approach for office-based psychiatric practice.

**No. 44E****BEHAVIORAL THERAPIES FOR ALCOHOL DEPENDENCE**

Grace Hennessy, M.D. *Veterans Administration Hospital, Substance Abuse Recovery Program, VAMC, 11M, 423 East 23rd Street, 11M, 17 West, NY, NY, 10010*

**SUMMARY:**

Behavioral therapies have been an important component of the treatment of alcohol dependence. Although no one treatment modality has emerged as the best, cognitive-behavioral therapy, motivational therapies, and contingency management, as used in recovery programs, all display some degree of efficacy. Twelve-step programs such as Alcoholics Anonymous and Narcotics Anonymous also play an important role in helping alcohol-dependent patients modify maladaptive behaviors. Psychiatrists should be skilled in practicing each type of therapy and have a working knowledge of twelve-step programs, because one technique may be more effective than another based on the nature of each patient's needs, expectations, and support systems. Additionally, these psychosocial interventions are increasingly studied in combination with pharmacotherapy for alcohol dependence in the outpatient setting, and use of this combination is increasing. This presentation will review the different types of behavioral therapy that are available for use by psychiatrists in the office, highlighting the advantages of each type of therapy and how it may be best employed in the treatment of alcohol-dependent patients.

## REFERENCES:

1. Svikis DS, Reid-Quinones K. Screening and prevention of alcohol and drug use disorders in women. *Obstet Gynecol Clin North Am.* 2003 Sep;30(3):447-68.
2. Back SE, Sonne SC, Killeen T, Dansky BS, Brady KT. Comparative profiles of women with PTSD and comorbid cocaine or alcohol dependence. *Am J Drug Alcohol Abuse.* 2003;29(1):169-89.
3. McCaul ME, Petry NM. The role of psychosocial treatments in pharmacotherapy for alcoholism. *Am J Addict* 2003;12(Suppl1):S41-S52.
4. Bodenheimer T, Wagner E, Grumbach K. Improving primary care for patients with chronic illness. *J Am Med Assoc.* 2002;288:1775-1779.
5. Svikis DS, Reid-Quinones K: Screening and prevention of alcohol and drug use disorders in women. *Obstet Gynecol Clin North Am.* 2003 Sep;30(3):447-68.
6. Koob GF, Le Moal M. Drug addiction, dysregulation of reward, and allostasis. *Neuropsychopharmacology.* 2001;24:97-129.
7. Kolodziej ME, Griffin ML, Najavits LM, Otto MW, Greenfield SF, Weiss RD. Anxiety disorders among patients with co-occurring bipolar and substance use disorders. *Drug Alcohol Depend.* 2005 May 2; [Epub ahead of print].
8. The role of psychosocial treatments in pharmacotherapy for alcoholism. McCaul ME, Petry NM. *Am J Addict* 2003;12(Suppl1):S41-S52.

## INDUSTRY-SUPPORTED SYMPOSIUM 45—MANAGING UNMET NEEDS IN PSYCHIATRIC ILLNESSES: A CRITICAL LOOK AT DISORDERS AND PUBLIC POLICY

Supported by Solvay Pharmaceuticals and  
Wyeth Pharmaceuticals

## EDUCATIONAL OBJECTIVES:

Describe underserved patient populations in depression, bipolar disorder, schizophrenia, and dementia.

List public policy positions to address unmet needs in psychiatric disorders.

Evaluate management strategies to improve access to care, reduce stigma, and improve outcomes.

### No. 45A MANAGING THE UNMET NEEDS IN DEPRESSION

A. John Rush, M.D. *University of Texas, SW Medical Center, Department of Psychiatry, 5323 Harry Hines Blvd., Dallas, TX, 75390-9086*

## SUMMARY:

Remission is the goal of acute treatment of depression because remitted patients have the best function and best prognosis. Yet, acute remission does not occur in most depressed patients after a single treatment. This presentation will provide an overview of the acute response and remission rates achieved in the STAR\*D trial (Sequenced Treatment Alternatives to Relieve Depression) after each of 4 sequenced treatment steps. We will examine whether greater degrees of prospectively defined treatment resistance are associated with lower rates of response or remission, greater time to achieve response or remission, or certain baseline clinical or demographic features. Other studies relating treatment resistance to acute outcomes will also be reviewed. Finally, whether greater treatment resistance results in poorer longer-term outcomes will be examined with the

STAR\*D data. The implication is these findings for specifying more effective treatment algorithms will be discussed.

### No. 45B MANAGING THE UNMET NEEDS IN BIPOLAR DISORDER

Roger S. McIntyre, M.D. *University Health, Department of Psychiatry, 399 Bathhurst St., Toronto, ON, M5T 2S8*

## SUMMARY:

Bipolar disorder is a highly prevalent heterogeneous and chronic medical disorder. Over the past decade, there has been substantial progress in the development of novel pharmacotherapeutic (e.g. atypical antipsychotics, Lamotrigine) and psychosocial interventions for bipolar disorder. Taken together, these novel treatment avenues offer a broader spectrum of effectiveness and improved tolerability compared to some older treatments (e.g. Lithium). Notwithstanding, the majority of persons with bipolar disorder receiving evidence-based care continue to manifest affective symptoms, psychiatric (e.g. anxiety disorders) and medical (e.g. obesity, cardiovascular disease) comorbidity, suicidal ideation, and functional impairment. The contemporary treatment of bipolar disorder needs to recognize and anticipate the multidimensionality of the disease. A chronic-illness management model is encouraged which aims to achieve symptomatic resolution, alleviation of comorbidity and full functional restoration. Tacit to these objectives is the requirement for treatment approaches that offer both short-term and long-term effectiveness. In addition, bipolar treatments should not burden patients with adverse events or deleteriously affect their overall physical health. This presentation aims to provide practitioners with a refined and succinct summary of the unmet clinical needs in bipolar disorder. The implications from both an individual and population-health perspective will be reviewed along with tactics and strategies to improve patient outcome and reduce overall illness-burden.

### No. 45C MANAGING THE UNMET NEEDS IN SCHIZOPHRENIA

Marvin S. Swartz, M.D. *Duke University Medical Center, PO Box 3173, Durham, NC, 27710-0001*

## SUMMARY:

Schizophrenia is a severe, disabling and chronic disorder that affects more than 3 million people in the United States. People with schizophrenia often have a range of biopsychosocial needs often unmet in usual community based care. Despite significant advances in pharmacologic and psychosocial treatments, there is a significant gap between what evidence demonstrates to be efficacious and what patients receive. As a result, many patients with schizophrenia receive far less than optimal care. This presentation will focus on areas of unmet needs in community treatment of schizophrenia, highlighting the need for dissemination and implementation of evidence based treatments appropriate for this population.

### No. 45D MANAGING THE UNMET NEEDS IN DEMENTIA

K. Ranga R. Krishnan, M.D. *Duke University Medical Center, Department of Psychiatry, Box 3950, Durham, NC, 27710*

## SUMMARY:

From 3% to 11% of persons older than 65 years, and 25 to 47 percent of persons older than 85 years have a dementing disorder. While there have been remarkable advances in the understanding of

the underlying pathophysiology of dementia, there are still many lingering questions regarding the causes of dementia. Alzheimer's disease (AD) and cerebrovascular disease (CVD) are widely regarded as major causes of dementia in older persons, but Alzheimer's disease for example is not currently genotyped and mixed dementia (vascular dementia and AD) is under-diagnosed and its causes have not been fully elucidated. Additionally, accurate recognition and classification still lag behind. For example, frontotemporal dementia is missed in more than 70% of patients. There is also an unmet need in managing the behavioral symptoms of dementia, which are the number one reason for institutionalization. Atypical antipsychotics have limited efficacy and carry safety concerns like CVAEs, which led to risperidone receiving a non-approvable letter in the treatment of behavioral disturbances in dementia. There also are no good predictors of response to acetylcholinesterase inhibitors in dementia and the field has made little progress in preventing the onset of dementia. Finally, medical schools still allocate a minimal percentage of their curriculum to dementia. Care-providers need to receive more in-depth training in order to support persons with dementia. This interactive presentation will address each of these unmet needs in an effort to improve outcomes in patients with dementia.

**No. 45E**  
**MANAGING THE UNMET NEEDS: A PUBLIC HEALTH DILEMMA**

Junius J. Gonzales, M.D. *NIH/National Institute of Mental Health, Division of Services, 6001 Executive Blvd., Bethesda, MD, 20892-9631*

**SUMMARY:**

There is now a growing body of evidence confirming the longstanding anecdotal impressions held by many physicians and advocacy groups--that a significant level of unmet needs exists in the delivery of mental health care. In spite of advances in diagnostic tools, new treatment modalities, and expansion of community services, the problem persists. Possible explanations include cultural factors, historical and institutional perceptions, clinician "blind spots", and even patient compliance and inadequate insurance coverage. Gaps also exist between research, clinical practice, and policy, and all of this takes place within the context of a public health imperative that is challenged by a climate of fiscal constraints and escalating health care costs. While the problem affects the entire patient spectrum, it is particularly acute in minority patient populations. Delay in seeking and receiving adequate treatment is a vexing problem, as it speaks to a web of interrelated issues including social stigma, provider responsiveness and cultural competency, avoidable comorbidities, productivity, and ultimately, public policy. This presentation will raise important questions about how public policy affects and should be affected by this concerning gap in care for critical psychiatric disorders including bipolar disorder, schizophrenia, and dementia.

**REFERENCES:**

1. Rush AJ, et al: for the STAR\*D Investigators Group. Sequenced Treatment Alternatives to Relieve Depression (STAR\*D): Rationale and design. *Controlled Clinical Trials*, 2004;25(1):119-142.
2. Judd LL, et al. Long-term symptomatic status of bipolar I vs. bipolar II disorders. *Int J Neuropsychopharmacol*. 2003 Jun;6(2):127-37.
3. Weiden PJ, et al: Teaching medication compliance to psychiatric residents: placing an orphan topic into a training curriculum. *Academic Psychiatry*. 2005; 29:203-210.
4. Gill SS, Rochon PA, Herrmann N, et al. Atypical antipsychotic drugs and risk of ischaemic stroke: population based retrospective cohort study. *BMJ*. 2005;330:445.
5. Wang PS, et al: Twelve-month use of mental health services in the United States. *Arch Gen Psychiatry*. 2005;62:629-640.

**INDUSTRY-SUPPORTED SYMPOSIUM**  
**46—REMISSION AND RECOVERY IN SCHIZOPHRENIA: ADVOCATING FOR OUR PATIENTS**  
 Supported by Pfizer, Inc.

**EDUCATIONAL OBJECTIVES:**

- Define remission and recovery in schizophrenia.
- Identify barriers to remission and recovery in schizophrenia.
- Implement a treatment plan that utilizes non-pharmacological and pharmacological strategies to improve patient outcomes.

**No. 46A**  
**DEFINING REMISSION AND RECOVERY IN SCHIZOPHRENIA**

Nancy C. Andreasen, M.D. *University of Iowa, Department of Psychiatry, 200 Hawkins Dr., 2911-JPP, Iowa City, IA, 52242*

**SUMMARY:**

Remission and recovery, in many medical illnesses, indicate a complete return to normal health. However, remission and recovery in schizophrenia are significantly harder to define. A patient's recovery is dependent not solely on quantitative factors, but on a complex series of improvements in quality of life, remission of symptoms, improvement in cognitive ability and achievement of social and vocational function. The Remission in Schizophrenia Working Group was established in 2003 to develop a consensus on the definition of symptomatic remission in patients with schizophrenia. Implementation of the criteria would provide researchers with an outcome goal and offer standards for comparison of treatment effectiveness. The group modeled the criteria for remission in schizophrenia after criteria established for mood and anxiety disorders. This presentation will examine the definitions of remission and recovery and offer a new perspective on treatment expectations and improved functional outcomes for patients with schizophrenia.

**No. 46B**  
**SHOULD FUNCTIONAL OUTCOMES BE A DEFINING FEATURE OF REMISSION AND RECOVERY IN SCHIZOPHRENIA?**

Stephen R. Marder, M.D. *VA Greater LA Health Care System, Department of Psychiatry, 11301 Wilshire Blvd, Los Angeles, CA, 90073-1003*

**SUMMARY:**

The notion of "recovery" has been proposed as a means of transforming the goals of treatment in schizophrenia. Most recently, recovery-oriented care was strongly emphasized in both the Surgeon General's Report on Mental Health and the President's New Freedom Commission on Mental Health. In the Final Report, the Commission strongly recommended, "fundamentally reforming" mental healthcare to be based on the goal of recovery (New Freedom Commission, 2003). Although there are a number of definitions of recovery, all of them emphasize a treatment that is patient focused and oriented to the recovery of functions that may have been lost as a result of the patient's illness. Recovery models also emphasize the importance of optimism regarding the patient's ability to improve the quality of their lives. This report will use the results of clinical studies to address critical questions regarding the relationship of psychopathology to the ability of patients to improve their functional outcomes. The questions will include: What is the relationship between the severity of psychotic symptoms and vocational and social

outcome? Is there evidence that pharmacotherapy and psychosocial treatments can interact in improving outcome? What are the relationships between cognitive impairments and negative symptoms and functional outcome? How important is it for patients to be in a symptomatic remission in order for them to benefit from psychosocial rehabilitation. This talk will use transcribed reports from patients who have experienced recovery to describe compensatory mechanisms that these individuals utilized in order to improve the quality of their lives.

No. 46C

### **AN EVIDENCE-BASED APPROACH TO ACHIEVING REMISSION AND RECOVERY IN SCHIZOPHRENIA**

John M. Kane, M.D. *Zucker Hillside Hospital, Department of Psychiatry, 75-59 263rd St., Glen Oaks, NY, 11004-1150*

#### **SUMMARY:**

Schizophrenia is a complex illness affecting numerous domains such as affect, behavior, cognition, and motivation. In planning treatment and assessing response it is critical to have measurable targets and goals. Medication continues to play a critical role in alleviating core signs and symptoms and facilitating psychosocial and vocational treatment modalities. Decisions regarding medication dosage, duration, augmentation, and switching need to be evidence-based to the extent possible. Initially clinicians and patients are most concerned about acute response, yet measures of response are neither well established nor consistent in routine clinical practice. Decisions regarding changes in treatment (e.g. high doses, polypharmacy etc) are often not well founded or well evaluated. There remains considerable debate as to key issues such as how long an initial treatment trial should last, what the second treatment should be, how many medications to try before utilizing clozapine etc. It is important that clinicians have a systematic approach to evaluating new data from clinical trials and determining their relevance to everyday clinical practice. Using metrics such as response, remission and recovery can be very helpful in allowing comparisons across studies and developing better predictors of outcome as well as treatment guidelines.

No. 46D

### **BARRIERS TO ACHIEVING REMISSION AND RECOVERY IN SCHIZOPHRENIA**

Meera Narasimhan, M.D. *USC School of Medicine, Dept. of Neuropsychiatry & Behavioral Science, 3555 Harden St. Extension, Columbia, SC, 29203*

#### **SUMMARY:**

Increasing advances in understanding the etiology and treatments in schizophrenia has led to redefining remission and functional recovery in terms of functional improvements, barriers to compliance and improved access to resources. Barriers to treatment in patients with schizophrenia has been an elusive pursuit that continues to grapple our field. These barriers have serious implications on subsequent relapses, increased potential for assault and dangerous behaviors, worsening of prognosis, higher economic burden and quality of life. Despite treatment advances and improved understanding of mental illness, stigma still remains a significant barrier to treatment and recovery. Risk factors for poor adherence can be categorized as patient, physician and treatment related issues. Patient-related risk factors encompass nonmodifiable risk factors, such as age and duration of illness, and those that could potentially be modified, such as comorbid substance abuse, memory problems due to cognitive deficits, homelessness, lack of education, family involvement, social supports and access to health care. Physician-related risk factors are related primarily to poor therapeutic alliance, poor discharge planning, or lack of follow-up care. Treatment-related risk factors include subjective tolerability that includes movement disorders, sexual dysfunction with first generation antipsychotics while weight gain and metabolic effects are frequently encountered with second generation antipsychotics, dose frequency, higher antipsychotic dose, possibly use of conventional antipsychotics, partial response, irrational polypharmacy and cost of medications. Improving adherence lags well behind the striking advances in psychopharmacology. Identifying biopsychosocial barriers that lead to nonadherence and enhancing compliance by adopting a comprehensive strategy that would encompass optimum choice of medication and psychosocial interventions that will significantly improve the management of schizophrenia is key to reintegration.

#### **REFERENCES:**

1. Andreasen NC, Carpenter WT, Kane JM, Lasser RA, Marder SR, Weinberger DR: Remission in schizophrenia: proposed criteria and rationale for consensus. *Am J Psychiatry* 2005;162:441-449.
2. Anthony WA, Rogers ES, et al: Relationships between psychiatric symptomatology, work skills, and future vocational performance. *Psychiatr Serv* 1995; 46(4): 353-8.
3. Robinson DG, et al: Symptomatic and functional recovery from a first episode of schizophrenia or schizoaffective disorder. *Am J of Psychiatry* 2004; 161:473-479.
4. Perkins DO. Predictors of noncompliance in patients with schizophrenia. *J Clin Psychiatry*. 2002 Dec;63(12):1121-8.

**SCIENTIFIC AND CLINICAL REPORT  
SESSION 1—PRESIDENTIAL THEME:  
FROM SCIENCE TO PUBLIC POLICY:  
ADVOCACY FOR PATIENTS AND THE  
PROFESSION**

No. 1  
**THE IMPACT OF AN INTEGRATED COMMUNITY  
ARTS STUDIO ON STIGMATIZING BELIEFS AND  
EXPERIENCES**

Thomas C. Zelnik, M.D. *Saint Joseph Mercy Hospital, Psychiatry, 2008 Hogback, Suite #7, Ann Arbor, MI, 48105, Valerie L. Howells, Ph.D.*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the of this presentation, the participant should be able to 1) recognize the potential for stigma to adversely impact self-perception, social participation and quality of life for those with mental illness, 2) identify potential advantages to the larger community when persons with mental illness are afforded opportunities to participate, 3) incorporate the implications of these findings into daily practice and community/system strategies for combating stigma.

**SUMMARY:**

Objective: Stigmatizing attitudes toward persons with mental illness lead to discrimination and constitute barriers to recovery for those affected. The objective of this presentation is to describe the impact of an integrated community arts studio on the stigmatizing beliefs and experiences of participants with and without mental illness.

Method: A participatory research design utilizing qualitative methods was employed. In-depth interviews were conducted prior to participants' involvement in the studio and at the conclusion of the study a year later. Participant observation occurred throughout the year.

Interviews were audio taped, transcribed, and coded by individual members of the research team prior to consensus coding by the group.

Results: Initial assumptions about "who is and who isn't" mentally ill reflected stereotypical beliefs about mental illness. As participants engaged in learning and making art with one another, concern about this question faded and was replaced by interest in the process and product. Outcomes ultimately included 1) reduction in stigmatizing beliefs and self-stigma, 2) personal transformation, and 3) the development of community.

Conclusions: Personal contact among participants, while an essential strategy for combating stigma, is necessary but not sufficient. In this study, the making of art created scaffolding upon which the shifting of beliefs and the building of community emerged.

**REFERENCES:**

1. Corrigan PW: *On the Stigma of Mental Illness: Practical Strategies for research and Social Change.* Washington, DC, American Psychological Association, 2005.
2. Pettigrew TF, Tropp LR: Does intergroup contact reduce prejudice; Recent meta-analytic findings. In *Reducing prejudice and Discrimination*, edited by Oskamp S, Mahwah, NJ: Erlbaum, 2000, pp93-114.

No. 2  
**HEALTH POLICIES AND THE DIAGNOSTIC AND  
STATISTICAL MANUAL**

Roger Peele, M.D. *Montgomery County, 401 Hungerford Drive, Rockville, MD, 20850, Mozhddeh Roozegar, M.D., Maryam Razavi, M.D.*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participants will be able to list the many ways that the DSM influences health policy and the many challenges that the DSM imposes on health policy.

**SUMMARY:**

Objective: Identify the impact of the DSM on health policies in the United States and Canada. Method: Review PubMed and Google for DSM's impact on health policies as well as recent APA publications on these two topics. Results: Mental health policy in the United States [and also to some degree, but a lesser degree, in Canada] is linked to DSM-IV more than any other document. Even going beyond "mental health policy" simply to "health policy" one finds Google listing "health policy" with "DSM-IV" more times than "health policy" is linked even with "ICD-9-CM" [which, of course, covers all illnesses]. This paper describes the numerous ways FDA, SAMHSA, CMS, NIH's Institutes, state governments, and Canadian agencies lean heavily on the DSM as to their policies. In clarifying the boundaries between wellness and illness and the subdivisions of mental illness, DSM-IV achieves some reliability for which health care policies can base plans and procedures as health coverage, criminal responsibilities, definition of disability, prevention, worth of a medication, and research directions. Unfortunately, these agencies sometimes assume DSM-IV has more than reliability. They are assuming it has validity. Yet, a dozen years after DSM-IV's publication, there has been no substantial improvement in the validity of any of DSM-IV entities. As Cloninger states, DSM-IV's categorical approach is "inconsistent with available knowledge of the psychobiology, genetics, development, and evolution of thoughts, emotions and behavior." Conclusions: While the APA should take great pride in the development of the DSMs, health policies that assume DSM-IV has validity, in addition to reliability, may harmfully restrict clinicians and researchers -- as there is little evidence that the present DSM-IV's divisions of psychopathology is valid. Consequences for public health policies are discussed.

**REFERENCES:**

1. Cloninger C: A new conceptual paradigm from genetics and psychobiology for the science of mental health. *Australian and New Zealand Journal of Psychiatry* 1998; 33:174-186.
2. First MB, Pincus HA, Levine JB, Williams JB, Ustun B, Peele R. Clinical utility as a criterion for revising psychiatric diagnoses. *Am J psychiatry.* 2004 Jun;161 [6]:946-54.

No. 3  
**THE SYSTEM FOR CLASSIFICATION OF  
INPATIENT PSYCHIATRY: A NEW CASE-MIX  
METHODOLOGY FOR MENTAL HEALTH**

John P. Hirdes, Ph.D. *University of Waterloo, Health Studies and Gerontology, 200 University Ave W, Waterloo, ON, N2L 3G1, Canada, Brant Fries, Ph.D., Edgardo L. Perez, M.D.*

**EDUCATIONAL OBJECTIVES:**

The primary objective of this report is to introduce participants to a new per-diem based methodology for case-mix classification of the in-patients in acute, forensic, long-stay and geriatric psychiatry using data from the RAI-Mental Health (RAI-MH) assessment instrument. The RAI-MH is a comprehensive assessment that was man-

dated for use with all Ontario inpatients in mental health beds effective October 2005.

#### SUMMARY:

**Objective:** To develop a per diem based case-mix classification system for use in all adult in-patient psychiatric settings. **Method:** Data sources/study setting - Primary data were collected from 34 psychiatric hospitals in three Canadian provinces. The sample includes acute, forensic, long-stay and geriatric psychiatry patients. **Study design -** A Staff Time Measurement (STM) study was done to derive wage-weighted per diem costs for a sample of about 2,000 patients who were also assessed with the RAI-Mental Health (RAI-MH) within 3 days of the STM study. STM data included: a) direct and indirect patient specific time for nursing unit staff and non-nursing professionals, laboratory and diagnostic procedures. **Data collection/ Extraction methods -** STM data were obtained over a 24 hour period using handheld computers on nursing units. Non-nursing staff, laboratory and diagnostic procedure data were tracked with 7-day logs. RAI-MH assessments were done by trained mental health professionals familiar with the patients. Staff data were converted to individual-specific, wage weighted per diem costs using provincial wage rates. The data were examined using decision tree analysis methods. **Results:** The System for Classification of In-Patient Psychiatry (SCIPP) is a 47 group algorithm explaining about 26% of variance in per diem resource use among adult psychiatric patients. There is an 8.4 times difference in the case mix index scores for the most, compared with the least, resource intensive groups in SCIPP. Careful attention was paid to avoiding the use of service variables, facility variables, gameable items and items that had poor psychometric properties. **Conclusions:** The SCIPP algorithm provides an important step forward in case-mix research for psychiatry. It achieves a higher explained variance than has been possible in previous research and does so without the use of independent variables that would be problematic to administer as part of a prospective payment system.

#### REFERENCES:

1. Hirdes et al. *f*Development of the Resident Assessment Instrument ' Mental Health (RAI-MH).§ *Hospital Quarterly* 2001; 4: 44-51.
2. Hirdes et al. *f*The Resident Assessment Instrument ' Mental Health (RAI-MH): Inter-rater Reliability and Convergent Validity.§ *Journal of Behavioral Health Services & Research* 2002; 29: 419-432.

## SCIENTIFIC AND CLINICAL REPORT SESSION 2—ETHICS AND HUMAN RIGHTS

### No. 4 ETHICS AND PSYCHOBIOLOGICAL RESEARCH

Cherise Rosen, Ph.D. *University of IL at Chicago, Psychiatry, 1601 West Taylor Street, suite 489, Chicago, IL, 60612*, Linda S. Grossman, Ph.D., Henry W. Dove, M.D.

#### EDUCATIONAL OBJECTIVES:

At the end of this presentation, participants will be informed about the historical development of research protections, the debate regarding the ethical appropriateness of psychobiological research with persons with mental illness, and the subjective evaluation of psychiatric research by subjects.

#### SUMMARY:

**Objective:** The debate regarding the ethical appropriateness of psychobiological research with persons with mental illness will have profound implications in future psychiatric research policy develop-

ment. The historical framework in which this debate is supported has resulted in systems that provide research protections. Building on this framework, we studied psychiatric patients' subjective evaluation of research participation, as patients' voices should be central to this debate.

**Method:** We studied 277 psychiatric inpatients admitted to a research unit, using the Patient Satisfaction Questionnaire, a standardized instrument assessing patients' perceptions of research participation. We compared the 207 who were admitted to participate in research and completed the study with the 70 who were admitted to participate but did not complete the research. We examined whether patients described their research participation as meeting their expectations, whether they would recommend research to others, whether they would participate in future research, and whether they believed their research participation affected the efficacy of their clinical treatment. **Results:** 1) Compared to patients who did not complete the research, patients who completed the research protocol significantly more often ( $P < .001$ ) reported that their experience was what they expected. 2) Patients who completed the research also reported they would more often ( $P < .003$ ) recommend research participation to family or others. 3) Finally, patients who completed the research were more likely to participate in future studies ( $P < .04$ ) and more often expressed the belief that the research participation contributed to their treatment efficacy ( $P < .001$ ). **Conclusions:** Current data highlighted the importance of including patients' subjective experience of research participation in the debate of risk vs. benefits of psychobiological research. Their perspectives may lead to the development of safeguards sensitive to their specific areas of resiliency and vulnerability. Increasingly sensitive safeguards should facilitate research participation by psychiatric patients, allowing them increased opportunity to contribute to scientific knowledge about the mental illnesses from which they suffer. Finally, their perspectives on research participation need to be factored into public policy and ethical considerations.

#### REFERENCES:

1. Roberts, L.W., Warner, T., Brody, J.. Perspectives of Schizophrenia Patients and Psychiatrists Regarding Ethically Important Aspects of Research Participation. *American Journal of Psychiatry*, 2000; 157: 67-74.
2. Hirschfield, R., Winslade, W., & Krause, T.. Protecting subjects and fostering research: Striking the proper balance. *Archives of General Psychiatry*, 1997; 54, 121-123.

### No. 5 TERRORISM AND MEDICAL ETHICS: CONFLICTING LOYALTIES FOR AMERICAN PSYCHIATRISTS

David A. Rothstein, M.D. *Swedish Covenant Hospital, psychiatry, 2851 West Bryn Mawr, Chicago, IL, 60659-4810*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be better able to (1.) appreciate the ethical obligations of physicians, (2.) understand what kinds of conflicts arise in meeting these goals, (3.) become aware of whether these goals are being met, (4.) consider how to resolve conflicts in meeting these goals, and ways to ensure compliance with these goals, (5.) understand how philosophical assertions of Kant and Mill can put the issue in the context of a broader humanistic framework, (6.) be better prepared to participate in assisting the APA and AMA to formulate and enforce policy on these issues, (7.) be prepared to advocate for physicians' ethical obligations, and to support their colleagues' ability to assist society while still avoiding participation in and opposing torture and similar human rights abuses, (8.) appreciate how this can also be important in



maintaining the collective values and morality that hold the social fabric together.

#### SUMMARY:

**Objective:** The terrorist attack of September 11, 2001 had a serious effect on our nation. Severe stress on a society by mass violence can lead to regression in individual psychology and social institutions. After presentation of my paper on terrorism at the 2004 APA meeting, I was asked by the session chair, a military psychiatrist, for comments on information just then published about Abu Ghraib. This paper includes my effort to answer that question. It explores whether there has been a weakening or regression in the practice of medicine and psychiatry, and how we may respond to this problem. Physicians can face conflicts between obligations to patients and to social purposes. The detention and interrogation of terrorism suspects is an important component of the global war on terrorism. Sources have posited physician/psychiatrist complicity in human rights violations, including torture and abuse of detainees in American custody in Afghanistan, Iraq, and Guantanamo. The APA recognizes the importance of the issue of psychiatric involvement in national security interrogations. **Method:** This paper reviews reports and documents published in news media, professional journals, books, internet sites, by human rights advocacy organizations, by U.S. Government departments, court cases, U.S. law, codes of medical ethics, international declarations, and related materials, regarding previous and current allegations of medical complicity in human rights violations and the responses to such violations, and considers applicable philosophical concepts of Mill and Kant. I also spoke with General Abizaid. **Results:** Many documents, such as the AMA Code of Medical Ethics, AMA CEJA Opinions and AMA House Policies, the WMA Declaration of Tokyo, and others clarify that it is unethical for physicians to participate in torture and abuse, even indirectly. JAMA has in the past published articles and commentary documenting abuses by physicians in other countries, and praising efforts by physicians to oppose them. Abuse and mistreatment of detainees has been documented in news media such as *The New York Times*, *Time Magazine*, in books and in a Report by Amnesty International. There are indications of a growing public acceptance of torture. The strong possibility of physician complicity in such human rights violations, including torture and abuse, is indicated in papers and editorials in the *British Medical Journal*, *Lancet*, the *New England Journal of Medicine*, and a report by Physicians for Human Rights.

**Philosophical concepts** provide perspective on the issue of dual loyalties. **Conclusions:** It is unethical for physicians to participate in torture, even indirectly, irrespective of conflicting obligations. Physicians, especially psychiatrists, are in a unique position to become aware of torture and abuse, and should report any such violations. Lifton points out that various regimes have sought to harness the aura associated with the medical field to promote their own ends. As the psychiatrist Frantz Fanon noted, torture degrades the torturer, as well as the victim. The APA should involve the membership more actively in defining the proper response to conflicting loyalties, and in acting to prevent breaching of these boundaries, as the APA has done regarding boundary violations in treatment situations.

#### REFERENCES:

1. Bloche MG, and Marks JH: Doctors and interrogators at Guantanamo Bay. *N Engl J Med* 2005; 353:6-8.
2. Borchelt G: Break them down: systematic use of psychological torture by U.S. forces. Cambridge, MA, Physicians for Human Rights, 2005.

#### No. 6

### A NEW MENTAL HEALTH ACT: AN AUSTRALIAN EXPERIENCE

Darryl P. Watson, M.D. *Central Northern Adelaide Health Service, Mental Health, 63 Commercial Road, Salisbury, 5108, Australia*

#### EDUCATIONAL OBJECTIVES:

To describe the process of review of Mental Health Legislation within South Australia, a mainland State of Australia.

To demonstrate the role of International Guidelines and Covenants along with national policy.

#### SUMMARY:

**Objective:** To describe the process of review of Mental Health Legislation within South Australia, a mainland State of Australia.

To demonstrate the role of International Guidelines and Covenants along with national policy. **Method:**

A descriptive report of the process in South Australia for a review of Legislation relevant to Mental Health, specifically around the process of review. This includes meeting United Nations Principles for Mental Health law review as well as national and state policy considerations. The report will also include historical perspectives based on earlier reviews within South Australia and reflect on changes over recent decades. **Results:**

A Review of Mental Health Legislation has been published for South Australia.

(<http://www.dh.sa.gov.au/mental-health-unit/documents/Legislation/Issues%20Paper%20July04.doc>). Controversial issues will be highlighted as part of the presentation. **Conclusions:**

Reviewing Mental Health Legislation is a useful process that should be conducted every ten years within given jurisdiction. The process recommended by the United Nations Principles for this type of review is practical and effective.

#### REFERENCES:

1. Australian Health Minister's Advisory Council (1996). Report on A Rights Analysis Instrument for use in Evaluating Mental Health Legislation.
2. Principles for the protection of persons with mental illness and the.

### SCIENTIFIC AND CLINICAL REPORT SESSION 3—ATTENTION SPECTRUM DISORDERS

#### No. 7

### TRANSDERMAL METHYLPHENIDATE VERSUS PLACEBO IN PEDIATRIC ADHD

Robert L. Findling, M.D. *University Hospitals of Cleveland, Psychiatry, 11100 Euclid Avenue, Cleveland, OH, 44106-5080*, Frank A. Lopez, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

1. Describe the methylphenidate transdermal system (MTS) as a new delivery form for the treatment of ADHD.
2. Discuss the efficacy and safety profile of MTS as studied in a naturalistic setting.

#### SUMMARY:

**Objective:** To evaluate the efficacy and safety of methylphenidate transdermal system (MTS) compared to placebo with reference to OROS methylphenidate in children with Attention-Deficit/Hyperactivity Disorder (ADHD) in a naturalistic community setting. **Method:** This was a randomized, double-blind, multi-center, parallel-group, placebo-controlled, dose optimization study in children aged 6 to 12 years diagnosed with ADHD using DSM-IV-TR criteria. Primary efficacy was assessed by clinicians using the ADHD-RS-IV rating scale. Additional efficacy measures included the revised Conners' parent and teacher rating scales (CTRS-R, CPRS-R). **Results:** A total of 282 subjects were enrolled and 270 subjects were included in the

intent-to-treat population. The change from baseline to study end-point in mean ADHD-RS-IV scores was  $-24.2 (\pm 14.55)$ ,  $-22.0 (\pm 14.91)$ , and  $-9.9 (\pm 14.06)$ , for treatment with MTS, OROS methylphenidate, and placebo, respectively. Compared with the placebo group, a significantly higher percentage of subjects treated with MTS ( $p < 0.0001$ ) and OROS methylphenidate ( $p < 0.005$ ) were rated as improved by parents. Similar positive results were seen with teacher's ratings. MTS was generally well tolerated and there were no serious adverse events reported. Conclusions: Compared with placebo, subjects treated with MTS displayed statistically significant improvements in all efficacy measures used in this study. The efficacy and adverse events reported with MTS was comparable to OROS methylphenidate. MTS appears to be an efficacious alternative to oral stimulant medications in ADHD.

#### REFERENCES:

1. Pelham WE, Burrows-Maclean L, Gnagy EM, et al: Transdermal methylphenidate, behavioral, and combined treatment for children with ADHD. *Exp Clin Psychopharmacol* 2005;13:111-126.
2. Pelham WE, Manos MJ, Ezzell CE, et al: A dose-ranging study of a methylphenidate transdermal system in children with ADHD. *J Am Acad Child Adolesc Psychiatry*. 2005;44:6:522-529.

#### No. 8

### EFFECTS OF TRANSDERMAL METHYLPHENIDATE IN A LABORATORY CLASSROOM STUDY

James J. McGough, M.D. *UCLA Neuropsychiatry Institute, 300 UCLA Medical Plaza, Los Angeles, CA, 90095*, Sharon B. Wigal, Ph.D., Howard Abikoff, Ph.D., John M. Tumbow, M.D., Kelly Posner, Ph.D., Eliot Moon, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

1. Describe the methylphenidate transdermal system (MTS) as a new delivery form for the treatment of ADHD
2. Discuss the time course of MTS efficacy compared with a placebo transdermal system as studied in a laboratory classroom environment.
3. Describe the safety profile of MTS.

#### SUMMARY:

Objective: To assess the efficacy and safety of a methylphenidate transdermal system (MTS) versus a placebo transdermal system (PTS) in a laboratory classroom setting. Method: This was a randomized, double-blind, placebo controlled, laboratory classroom, cross-over study following a 5-week open label dose optimization. Children aged 6-12 with attention-deficit hyperactivity disorder (ADHD) were enrolled. The primary behavioral outcome measure used in the classroom was the SKAMP-Dependent subscale (SKAMP-D) scale. Additional efficacy measures included the SKAMP-Attention subscale, PERMP age-adjusted math test scores, ADHD rating scale (ADHD-RS) scores, and clinician and parent global ratings. Results: Mean SKAMP-D scores for the MTS group were significantly better than for the placebo group [ $3.2 (\pm 3.64)$  vs  $8.0 (\pm 6.33)$ , respectively;  $p < 0.0001$ ]. For the MTS group, significant improvements from baseline in the number of math problems attempted and number completed correctly were recorded at each post-dose time point ( $p < 0.001$ , MTS vs. placebo). SKAMP-attention, ADHD-RS scores and global assessments by clinicians and parents showed significant efficacy for MTS over placebo ( $p < 0.0001$ ). Conclusions: Compared with placebo, treatment with MTS resulted in statistically significant improvements in all efficacy measures analyzed. MTS was generally well tolerated and there were no serious adverse events reported. MTS may be an efficacious option for the treatment of pediatric ADHD.

#### REFERENCES:

1. Pelham WE, Burrows-Maclean L, Gnagy EM, et al: Transdermal methylphenidate, behavioral, and combined treatment for children with ADHD. *Exp Clin Psychopharmacol* 2005;13:111-126.
2. Pelham WE, Manos MJ, Ezzell CE, et al: A dose-ranging study of a methylphenidate transdermal system in children with ADHD. *J Am Acad Child Adolesc Psychiatry*. 2005;44:6:522-529.

#### No. 9

### MODAFINIL-ADHD: LONG-TERM EFFICACY AND SAFETY IN CHILDREN AND ADOLESCENTS WITH ADHD

Samuel W. Boellner, M.D. *Neurology Clinical Study Centers, LLC, Medical Towers Building 1, 906 Lisle Drive, Suite 900, Little Rock, AR, 72205*, James A. Knutson, M.D., John G. Jiang, Ph.D., Ronghua Yang, Ph.D., Craig Q. Earl, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to discuss the long-term efficacy and safety of modafinil-ADHD in children and adolescents with ADHD.

#### SUMMARY:

Objective: To evaluate the 12-month efficacy and safety of modafinil-ADHD in children and adolescents with ADHD. Method: Patients (6-17 years old) who completed 12 months of an open-label extension study were included. Efficacy assessment scales included the ADHD-RS-IV Home version, the Clinical Global Impression of Severity (CGI-S), and the Child Health Questionnaire (CHQ). Tolerability was based on adverse events, vital signs, laboratory evaluations, ECGs, and body weight. Results: Of 536 patients enrolled, 237 patients completed 1 year of modafinil-ADHD treatment and were included in the analysis for long-term safety and efficacy. Modafinil-ADHD improved total scores on the ADHD-RS-IV Home version at final visit compared with baseline (38.1 vs 15.1) and overall clinical condition (at final visit, percentage of patients who achieved at least a 1-point reduction in CGI-S from baseline; 93%). Modafinil-ADHD improved overall quality of life (CHQ) over 12 months, with specific improvements in role emotional-behavior, behavior, global behavior, mental health, self-esteem, family activities, parent impact-time, parent impact-emotional, and the psychosocial summary. The most common adverse events were infection, headache, insomnia, increased cough, and decreased appetite. Most adverse events were mild-to-moderate in nature. There were no notable changes in cardiovascular measures. Body weight increases were observed through month 12 (mean increase 2.8 kg). Conclusions: Long-term administration of modafinil-ADHD was associated with maintained efficacy and an adverse-event profile that was well tolerated.

#### REFERENCES:

1. Pataki CS, Feinberg DT, McGough JJ. New drugs for the treatment of attention-deficit/hyperactivity disorder. *Expert Opin Emerg Drugs* 2004;9:293-302.
2. Wilens TE, Dodson W. A clinical perspective of attention-deficit/hyperactivity disorder into adulthood. *J Clin Psychiatry* 2004;65:1301-1313.

### SCIENTIFIC AND CLINICAL REPORT SESSION 4—CURRENT TRENDS IN SCHIZOPHRENIA

#### No. 10

### RECURRING PSYCHOSIS IN SCHIZOPHRENIA: A 20-YEAR MULTI, FOLLOW-UP STUDY

Martin Harrow, Ph.D. *University of Illinois, Psychiatry, 1601 West Taylor Street, M/C 912, Chicago, IL, 60612*, Thomas H. Jobe, M.D.,

Linda S. Grossman, Ph.D., Joseph F. Goldberg, M.D., Kalman J. Kaplan, Ph.D., Robert Faull, B.S.

### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation participants will know what percent of modern-day schizophrenia patients have continuous psychosis. They also will know what factors are protective against recurring psychosis in the schizophrenia patients they are treating and in patients with other types of psychotic disorders.

### SUMMARY:

**Objective:** The current 20 year longitudinal study was designed to determine how many modern-day patients with schizophrenia have frequent or persistent psychosis after the acute phase. We also studied protective factors which reduce the recurrence of psychosis in schizophrenia and other psychotic disorders. **Method:** 187 patients (46 schizophrenia patients and 141 other psychotic and nonpsychotic control patients) from the Chicago Followup Study were evaluated prospectively at index hospitalization and then followed up 6 times over the next 20 years. Using standardized research instruments patients were assessed for positive/negative symptoms, psychosocial functioning, rehospitalization, global outcome, and medication treatment. **Results:** 1) The data indicate that 30% of schizophrenia patients show continuous psychotic activity.

2) None of the schizophrenia patients with good prognostic features (Vaillant-Stephens Scale) and very few patients with good premorbid developmental achievements showed continuous psychosis.

3) Schizophrenia patients with continuous psychosis performed more poorly on key neurocognitive tasks (learning, working memory, concrete thinking) ( $p < .05$ ).

4) Not all patients with schizophrenia are vulnerable or respond poorly to anxiety, but those that are vulnerable to anxiety are the type that are significantly more likely to show continuous psychotic activity ( $p < .001$ ).

**Conclusions:** 20-year data indicate that with modern day treatment only 30% of schizophrenia patients show continuous psychosis and 20% do not show any recurring psychosis. The data also highlight protective factors which reduce recurring and persistent psychosis. These include good premorbid developmental achievements, low vulnerability to anxiety, favorable early prognostic features, and better performance on key neurocognitive variables.

### REFERENCES:

1. Harrow M, Herbener E, Shanklin, A, Jobe J, Rattenbury F, Kaplan, K: Followup of psychotic outpatients: Dimensions of delusions and work functioning in schizophrenia. *Schizophr Bull* 2004; 30(1): 147-161.
2. Kapur S: Psychosis as a state of aberrant salience: A framework linking biology, phenomenology, and pharmacology in schizophrenia. *Am J Psychiatry* 2003; 160: 13-23.

No. 11

### IDENTIFYING THE NEUROBIOLOGICAL BASIS FOR SCHIZOPHRENIA

Zeinab S. Elbaz, M.D. *Mt Sinai School of Medicine, NY, USA, Psychiatry, 2088 Ellen Drive, South Merrick, NY, 11566*

### EDUCATIONAL OBJECTIVES:

This paper will review the most recent data that address the issue in an attempt to create a simplified framework that will hold more detailed information coming from different lines of research. The neural substrate behind information processing and attentional deficits will be examined, as well as the evidence for sensory gating abnormalities.

### SUMMARY:

**Objective:** A simplified and comprehensive understanding of the neurobiology of schizophrenia is presented. **Method:** Extensive review of literature from basic sciences to clinical studies. **Results:** SUMMARY

The heterogeneity of the Schizophrenia construct poses a major hurdle for the study of the disease mechanisms and etiology. Therefore researchers have attempted to reduce the complexity by defining subtypes or dividing Schizophrenia into one or more entities. Once subtyping has been defined, researchers attempt to localize clinical features to distinct brain regions or neural networks relying on neuroscientific models of how behavior is implemented in the brain. At the turn of the twentieth century many observations were made of the profound information processing and attentional abnormalities that characterize Schizophrenia patients. Recently it has been proposed that the underlying premise in the definition of psychosis is that the brain's processing of information derived from the outside world is perturbed. Moreover, theoretically, when sensory gating mechanisms fail, the individual is vulnerable to sensory overload, cognitive fragmentation and thought disorder. The memory system is another source of information to the brain. It also has an important role in learning and cognition and is one of the major forces guiding brain plasticity. Several anatomic systems are involved in higher order information processing. The thalamus processes most of the information reaching the cerebral cortex from the rest of the CNS. Synapses are the basic computation units in the brain. Changes of synaptic connections and synaptic strength are the basis of information processing and memory formation. Gene expression profiling of post-mortem brain tissue in subjects with schizophrenia has revealed that of 250 functional gene groups surveyed, the gene group encoding proteins involved in synaptic neurotransmission showed the most consistently altered levels of expression in subjects with schizophrenia. Consistent with these observations, neural circuitry studies have provided evidence of disturbances in the synaptic connections between the thalamus and DLPF cortex in subjects with schizophrenia. **Conclusions:** The current evidence shows that Schizophrenia is a disease that affects distributed neural circuits rather than single cells or single regions. It damages the way regions are connected to one another breaking down signal transfer. It's a "misconnection syndrome" caused by a mixture of genetic and non-genetic influences which affect the development of the brain during the prolonged period of brain maturation which is probably not completed until the early twenties. Elucidating signal transduction mechanisms in relevant brain circuitry will provide more understanding of the neurobiological mechanisms of Schizophrenia in order to influence or arrest their occurrence or progression and for the development of more effective treatment.

### REFERENCES:

1. Kaplen GB, Hammer Jr. Brain Circuitry and signaling in Psychiatry, APP2002.
2. Charney DS, Nestler EJ. *Neurobiology of Mental Illness*, Oxford University press, 2004.

No. 12

### KEY FINDINGS FROM THE INTERCONTINENTAL SCHIZOPHRENIA OUTPATIENTS HEALTH OUTCOMES STUDY (IC-SOHO): DISEASE BURDEN AND CLINICAL OUTCOMES ASSOCIATED WITH ANTIPSYCHOTIC TREATMENT FOR SCHIZOPHRENIA

Martin Dossenbach *Eli Lilly, Ges.m.b.H, Vienna, Austria, Barichgasse 40 - 42, Vienna, 1030, Austria*, Jan Pecenek, Urban Groleger, Agata Szulc, Yulia Dyachkova, Amanda J. Lowry

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to discuss the outcomes associated with antipsychotic treatment for schizophrenia in outpatient communities and evaluate the contribution of naturalistic data to the current understanding of this disorder.

**SUMMARY:**

**Objective:** Non-interventional, naturalistic studies facilitate examination of current clinical practices, and afford us an understanding of the impact of the biopsychosocial aspects of schizophrenia. We present key findings from a pan-regional (n=27 countries) 3-year observational study. **Method:** Outpatients (N=7658) initiating or changing antipsychotic therapy for schizophrenia were assessed at 0, 3, 6, 12, 18, 24, 30, and 36 months.<sup>1</sup> Longitudinal clinical, pharmacological, functional, and social data have already been evaluated up to 24 months, now 36-month results will be presented.<sup>2</sup> **Results:** At entry, 76.2% of patients were prescribed antipsychotic monotherapy. At 24 months, the proportion of patients remaining on monotherapy was 74.4% (n=1525) for olanzapine, 57.9% (n=389) for risperidone, 42.7% (n=53) for quetiapine, and 38.3% (n=59) for haloperidol. We will present data on the relationship between burden of disability and disease outcomes in order to evaluate the comparative effectiveness and tolerability of antipsychotics in a real life setting. **Conclusions:** IC-SOHO provides important insight into the clinical and functional outcomes associated with long-term antipsychotic treatment in less-studied outpatient communities across the world in a naturalistic setting. Our goal is to translate the results of clinical trials into community-based healthcare.

This study was funded by Eli Lilly.

**REFERENCES:**

1. Dossenbach M, Erol A, el Mahfoud Kessaci M, Shaheen MO, Sunbol MM, Boland J, Hodge A, O'Halloran RA, Bitter I; IC-SOHO Study Group: Effectiveness of antipsychotic treatments for schizophrenia: Interim 6-month analysis from a prospective observatio.
2. Dossenbach M, Arango-Davila C, Silva Ibarra H, Landa E, Aguilar J, Caro O, Leadbetter J, Assuncao S: Response and Relapse in Patients With Schizophrenia Treated With Olanzapine, Risperidone, Quetiapine, or Haloperidol: 12-Month Follow-Up of the In.

## SCIENTIFIC AND CLINICAL REPORT SESSION 5—MEDICATION RESPONSE IN MDD

No. 13

### DULOXETINE VERSUS ESCITALOPRAM AND PLACEBO IN THE LONG-TERM TREATMENT OF PATIENTS WITH MDD

Teresa A. Pigott, M.D. *University of Florida, College of Medicine, 2970 Hartley Road, Suite 202, Jacksonville, FL, 32257*, Lesley M. Arnold, M.D., Scott T. Aaronson, M.D., Apurva Prakash, Craig H. Mallinckrodt, Michael J. Robinson, Madelaine M. Wohlreich, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to discuss the comparative efficacy and tolerability of duloxetine and escitalopram in the long-term treatment of depression.

**SUMMARY:**

**Objective:** Duloxetine was compared to escitalopram in a multicenter, randomized, double-blind, placebo-controlled trial conducted in adult outpatients meeting DSM-IV criteria for MDD. The

8-month trial had 2 phases: a) an acute phase comprised of an 8-week, double-blind, fixed-dose, comparison of duloxetine (n=273), escitalopram (n=274), and placebo (n=137); and b) a 6-month, double-blind, flexible dose extension phase. In the acute phase, both duloxetine (60 mg/d) and escitalopram (10 mg/d) were significantly better than placebo, with duloxetine demonstrating onset that was at least as fast as escitalopram (the primary outcome measure). The current report will focus on the comparative efficacy and safety data from the extension phase. **Method:** At entry into the 6-month extension phase, patients already on active treatment were continued on duloxetine (n=180) or escitalopram (n=195), respectively; those on placebo who met pre-defined rescue criteria (n=59) were re-assigned to duloxetine (n=28) or escitalopram (n=31). Dosing for the extension phase was flexible (duloxetine, 60, 90, or 120 mg/d; escitalopram, 10 or 20 mg/d) and based on pre-defined criteria. Extension phase efficacy measures included the 17-item HAM-D, HAMA, CGI-S, and PGI-I scales. Safety and tolerability measures included spontaneously reported adverse events (AEs), discontinuation rates, Changes in Sexual Functioning Questionnaire (CSFQ), laboratory analyses, and vital signs. Health outcomes data were assessed using multiple instruments. **LIMITATIONS:** The power to detect a difference between the active treatments and placebo was significantly decreased since at study endpoint, few patients (n=15) remained on placebo compared with duloxetine (n=105) or escitalopram (n=124). **Results:** Both duloxetine and escitalopram maintained their antidepressant efficacy throughout the entire 8-month study. No efficacy measure detected significant drug differences at extension endpoint. AE-related discontinuation rates were similar between duloxetine, escitalopram, and placebo during the extension phase. The duloxetine group reported significantly more headaches and abnormal dreams than the placebo group, whereas increased weight, diarrhea, and extremity pain were reported significantly more in the escitalopram group than in the placebo group. There were significant differences between drugs on mean change from baseline (LOCF) for pulse (+2.1 bpm, duloxetine; -0.4 bpm, escitalopram, p<.005) and systolic blood pressure (+2.5 mm Hg, duloxetine; +0.2 mm Hg, escitalopram, p<.05). There was also a significant drug difference in the mean weight change (0.0 kg, duloxetine; +1.0 kg, escitalopram, p<.005). **Conclusions:** Duloxetine and escitalopram demonstrated similar, sustained antidepressant efficacy throughout the 8-month study, but several significant drug differences were identified during the extension phase in safety and tolerability measures including differential AE occurrence and dissimilar effects on pulse, blood pressure, and weight parameters.

**REFERENCES:**

1. Hirschfeld RM, Mallinckrodt C, Lee TC, Detke MJ. Time course of depression-symptom improvement during treatment with duloxetine. *Depress Anxiety*. 2005;21(4):170-7.
2. Bielski RJ, Ventura D, Chang CC. A double-blind comparison of escitalopram and venlafaxine extended release in the treatment of major depressive disorder. *J Clin Psychiatry*. 2004 Sep;65(9):1190-6.

No. 14

### CONDITIONAL PROBABILITY OF RESPONSE TO PLACEBO IN MDD

Jennifer Covino, M.P.A. *Massachusetts General Hospital, Dept. of Psychiatry, 15 Parkman Street, WAC-812, Boston, MA, 02114*, David Mischoulon, M.D., Jonathan E. Alpert, M.D., Andrew A. Nierenberg, M.D., John M. Zajecka, M.D., Harald Murck, M.D., Jerrold F. Rosenbaum, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to understand the conditional probability of response to placebo

in the context of a double-blind study in major depressive disorder (MDD).

#### SUMMARY:

**Objective:** This study evaluates the conditional probability of response to placebo in the context of a double-blind study in major depressive disorder (MDD). **Method:** Following a 1-week, single-blind wash-out, patients with MDD diagnosed by SCID were randomized to 12 weeks of double-blind treatment with LI 160 St. John's wort extract (900 mg/day), fluoxetine (20 mg/day), or placebo. The 17-item Hamilton Rating Scale for Depression (HAM-D-17) was the primary efficacy measure. The frequency of visits was the following: baseline, week 1, 2, 4, 6, 8, and 12 or endpoint. The conditional probability of response at endpoint was calculated at week 1, 2, 4 and 6 with respect to the degree of improvement (<25% vs <50%). **Results:** 135 patients (57% women, mean age: 37.3 + 11.0; mean HAM-D-17: 19.7 + 3.2) were randomized to double-blind treatment and were included in the intent-to-treat analyses. Of the 43 patients randomized to placebo (65% women; mean age: 37.8 + 12.0; mean HAM-D-17: 19.9 + 2.9), 15 (34.9%) patients were considered responders (>50% reduction in HAM-D-17 score from baseline) to placebo at endpoint. Of the 15 responders to placebo, 12/15 (80%) responded by visit 3 (week 4) and 14/15 (93%) responded by visit 4 (week 6). Among those, the conditional probability of response at endpoint for patients who did not show initial significant improvement (< 25% decrease in HAM-D-17 score) and for those who did not initially respond (< 50% decrease in HAM-D-17 score) was 47% and 80% at week 1, 20% and 67% at week 2, 13% and 20% at week 4, and 0% and 7% at week 6. **Conclusions:** Our preliminary data from a 12-week double blind study in MDD on placebo suggest that lack of significant improvement by week 4 is associated with a relatively low chance of response by endpoint.

#### REFERENCES:

1. Fava M, Evins AE, Dorer DJ, Schoenfeld D. The problem of the placebo response in clinical trials for psychiatric disorders: culprits, possible remedies, and a novel study design approach. *Psychotherapy and Psychosomatics* 2003; 72:115-127.
2. Beecher HK. The powerful placebo. *J Am Med Assoc.* 1955 Dec 24;159(17):1602-6.

#### No. 15

### ADDITION OF ATOMOXETINE FOR DEPRESSION INCOMPLETELY RESPONSIVE TO SERTRALINE: A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY

David Michelson, M.D. *Eli Lilly and Company, Lilly Research Laboratories, Lilly Corporate Center, Indianapolis, IN, 46285*, Lenard A. Adler, M.D., Jay D. Amsterdam, M.D., David L. Dunner, M.D., Andrew A. Nierenberg, M.D., Frederick W. Reimherr, M.D., Alan F. Schatzberg, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be aware of the available controlled evidence examining the use of norepinephrine reuptake inhibitors generally and atomoxetine specifically as augmenting agents for depressed patients poorly or partially responsive to an adequate trial of SSRI treatment.

#### SUMMARY:

**Objective:** To assess the value of adding atomoxetine for improving response in patients poorly or partially responsive to an initial trial of sertraline. **Method:** Depressed patients were treated with sertraline at doses up to 200 mg. Patients who continued to experience depressive signs and symptoms after 8 weeks were randomly assigned to have atomoxetine 40-120 mg/day or placebo added to sertraline for a further 8 weeks. **Results:** Of 276 patients starting

the study, 146 poor or partial responders (mean [SD] final sertraline dose: 161.1 [43.4]) completed 8 weeks and were randomly assigned to addition of atomoxetine or placebo. After 8 additional weeks, there was no difference between treatment groups in mean change in symptom severity or the proportion of patients whose symptoms remitted (sertraline/atomoxetine 29/72 [40.3%], sertraline/placebo 28/74 [37.8%],  $p=.865$ ). *Secondary analyses in the partial responder and nonresponder subgroups also showed no effect of atomoxetine. The number of patients discontinuing because of adverse events did not differ between groups.* **Conclusions:** In depressed patients poorly or partially responsive to an initial trial of sertraline, addition of atomoxetine did not improve response more than placebo.

#### REFERENCES:

1. Fava M, Rosenbaum JF, McGrath PJ, Stewart JW, Amsterdam JD, Quitkin FM: Lithium and tricyclic augmentation of fluoxetine treatment for resistant major depression: a double-blind, controlled study. *Am J Psychiatry* 1994; 152:1372-1374.
2. Nelson JC, Mazure CM, Jatlow PI, Bowers MB Jr, Price LH: Combining norepinephrine and serotonin reuptake inhibition mechanisms for treatment of depression: a double-blind, randomized study. *Biol Psychiatry* 2004; 55:296-300.

### SCIENTIFIC AND CLINICAL REPORT SESSION 6—TREATMENT MANAGEMENT AND OUTCOMES IN MOOD DISORDERS

#### No. 16

### MANAGEMENT OF SIDE EFFECTS ASSOCIATED WITH NEW TREATMENTS FOR BIPOLAR DEPRESSION

Joseph R. Calabrese, M.D. *University Hospitals of Cleveland, 11400 Euclid Avenue, Suite 200, Cleveland, OH, 44106*, Robert M. A. Hirschfeld, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should have acquired knowledge of 1) the side effect profiles of new treatments for bipolar depression and 2) management options for patients experiencing side effects of these treatments.

#### SUMMARY:

**Objective:** Tolerability is one of the key factors in prescribing medication, including atypical agents, for bipolar disorder. All medications are associated with side effects, which may reduce clinical effectiveness and lead to poor compliance with treatment. Medications vary in their side effect profile and therefore are likely to differ in their impact on long-term tolerability. For example, atypicals generally demonstrate a reduced propensity to induce extrapyramidal symptoms (EPS) compared with high potency conventional agents, but, a more common side effect with some atypicals is sedation or somnolence. Due to their more benign side effect profile, atypical agents are recommended over conventional antipsychotics for the treatment of patients with bipolar disorder. New treatments for bipolar depression include lamotrigine, olanzapine and quetiapine. This session aims to provide education to clinicians regarding the side effects associated with these medications and the options for management of these side effects. **Method:** A review of side effects, particularly sedation, associated with lamotrigine (50 or 200 mg/day) (Calabrese et al, 1999), olanzapine (5-20 mg/day), olanzapine plus fluoxetine (6 and 25, 6 and 50 or 12 and 50 mg/day respectively) (Tohen et al, 2003), and quetiapine (300 or 600 mg/day) (Calabrese et al, 2005) treatment for bipolar depression. **Results:** Common adverse events in bipolar depression studies included headache, nausea and rash with lamotrigine; somnolence, weight gain, increased appetite,

and asthenia with olanzapine; dry mouth, sedation/somnolence, dizziness, and constipation with quetiapine. The adverse effects associated with each treatment will be discussed in detail but as an example, rates of somnolence/ sedation observed with lamotrigine, olanzapine, olanzapine plus fluoxetine, and quetiapine were 5%, 28.1%, 20.9%, and 57% (each dose), respectively. The proportion of patients who discontinued the studies due to sedation/somnolence were: 0% with lamotrigine, 9.2% with olanzapine, 2.3% with olanzapine plus fluoxetine, and 9-12% with quetiapine. An analysis of the time course of sedation/somnolence in the quetiapine studies suggested that in patients who experienced this adverse effect, sedation/somnolence occurred within the first couple of weeks of treatment and was mild to moderate in intensity. Conclusions: It is imperative that clinicians educate patients on the possible side effects of their treatment and how these side effects can be managed. Using recent trial data for lamotrigine, olanzapine and quetiapine for the treatment of patients with bipolar depression as well as clinical practice guidelines, the aim of this report is to discuss the side effects that may reduce patient acceptability and identify management options for patients experiencing treatment-related side effects.

Support for this abstract was provided by AstraZeneca.

Calabrese JR, Bowden CL, Sachs GS, et al. for the Lamictal 602 Study Group: A double-blind placebo-controlled study of lamotrigine monotherapy in outpatients with bipolar I depression. *Lamictal 602 Study Group. J Clin Psychiatry* 1999 Feb;60:79-88.

#### REFERENCES:

1. Tohen M, et al. Efficacy of olanzapine and olanzapine-fluoxetine combination in the treatment of bipolar I depression. *Arch Gen Psychiatry*. 2003 Nov;60:1079-88.
2. Calabrese JR, et al. A randomized, double-blind, placebo-controlled trial of quetiapine in the treatment of bipolar I or II depression. *Am J Psychiatry*. 2005 Jul;162:1351-60.

#### No. 17

### TREATMENT-RESISTANT DEPRESSION: CHANGES IN SYMPTOMS AND FUNCTIONING IN A CLINICAL SAMPLE

Alex A. Cardoni, M.S. *Institute of Living, Burlingame Center for Psychiatric Research and Education, 200 Retreat Avenue, Hartford, CT, 06106*, Stephen B. Woolley, M.P.H., Deborah Piez, M.S., John W. Goethe, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to discuss changes in symptoms vs quality of life in "treatment resistant" depressed patients.

#### SUMMARY:

Objective: To assess symptom response and functioning in a sample of patients with resistant depression treated with antidepressants. Method: Forty-one adult patients with resistant depression were assessed at Baseline, Weeks 1-4, 6, 8, 12, and 16. Symptom response was assessed using the HAM-D and the BDI-II. Functioning was assessed using the Quality of Life (QOL) Scale. SSRI monotherapy was adjusted with augmentation/switching. Data analysis included descriptive statistics and calculation of Pearson correlation coefficients. Results: After 16 weeks, there was a 46% decrease in BDI scores ( $F=5.147, p<.01$ ), 27% decrease in HAM-D scores ( $F=3.762, p<.02$ ) and 29% improvement in total QOL scores ( $F=4.447, p<.01$ ). QOL Factor 2 (Instrumental Role Functioning) showed the greatest increase (83%) compared to 22-27% increases for Factors 1,3, and 4. Improvement in functioning was highly correlated with symptom improvement for both the Beck-II ( $r=-.495, p<.01$ ) and the HAM-D ( $r=-.399, p<.01$ ). Switching/augmentation was associated with a greater improvement in symptom response (BDI:  $F=3.841, p<.01$ ;

HAM-D:  $F=2.998, p<.03$ ) and functioning (QOL:  $F=3.931, p<.01$ ) by week 16. Conclusions: There was significant improvement on all measures over the 16 weeks, but improvement was greater in the augmentation/switch group. In addition, rating scale assessments of patients with resistant depression showed significant correlations between symptom response and functioning.

#### REFERENCES:

1. Corey-Lisle PK, Nash R, Stang P, Swindle R. Response, partial response, and nonresponse in primary care treatment of depression. *Arch Intern Med* 2004; 164:1197-1204.
2. Demyttenaere K, De Fruyt J, Stahl SM. The many faces of fatigue in major depressive disorder. *International Journal of Neuropsychopharmacology* 2005; 8:93-105.

#### No. 18

### SPECIFICITY OF EFFECT OF QUETIAPINE IN BIPOLAR DEPRESSION

Robert M. A. Hirschfeld, M.D. *University of Texas Medical Branch, 301 University Boulevard 1.302RSH, Galveston, TX, 77555-0188*, Joseph R. Calabrese, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand that the efficacy of quetiapine in patients with bipolar depression is attributable to a specific effect on core symptoms of depression, not on non-specific factors such as its sedative or anxiolytic effects.

#### SUMMARY:

Objective: The BOLDER I trial of patients with bipolar depression demonstrated that 8 weeks of treatment with quetiapine is significantly more effective than placebo in reducing total Montgomery-Asberg Rating Scale (MADRS) score (the primary efficacy measure), response rate, remission rate, and total Hamilton Rating Scale for Depression (HAM-D) score. In addition, quetiapine significantly improved the core symptoms (apparent sadness, reported sadness and suicidal ideation) of depression. Quetiapine may also potentially have "nonspecific" effects that could contribute to its antidepressant efficacy. Candidate nonspecific effects include anxiety, lassitude, and somnolence, which will be reviewed in this presentation. Method: Post-hoc subanalysis of BOLDER I trial database. Results: Improvement in total MADRS score was equivalent in patient subgroups with high vs low baseline anxiety (defined as a Hamilton Rating Scale for Anxiety [HAM-A] cut-off score of 19): -16.87 vs -16.36 in the quetiapine 600 mg/day group, -15.43 vs 17.07 in the quetiapine 300 mg/day group, and -9.68 vs -10.81 in the placebo group (both subgroups:  $P<0.001$  for quetiapine vs placebo), respectively. Similarly, total MADRS scores improved significantly in patient subgroups with high vs low baseline lassitude (defined as MADRS item 7 cut-off score of 3): -18.7 vs -14.3 in the quetiapine 600 mg/day group, -17.2 vs -15.2 in the quetiapine 300 mg/day group, and -11.0 vs -9.5 in the placebo group (both subgroups:  $P<0.001$  for quetiapine vs placebo). Total MADRS scores improved equivalently in the quetiapine-treated patients reporting compared with those not reporting somnolence or sedation at any time during the study: -16.1 vs -17.6 in the quetiapine 600 mg/day group and -16.5 vs -16.4 in the quetiapine 300 mg/day group; in the placebo group, total MADRS score improved more in patients reporting somnolence/sedation than in those without this event (-17.8 vs -9.1). Conclusions: The clinical implications of these and other findings suggesting a specific antidepressant effect of quetiapine will be discussed.

Funding for this research was provided by AstraZeneca.

## REFERENCES:

1. Calabrese JR, et al. A randomized, double-blind, placebo-controlled trial of quetiapine in the treatment of bipolar I or II depression. *Am J Psychiatry* 2005; 162:1351-1360.
2. Hirschfeld RMA, et al. Quetiapine effects on anxiety symptoms in patients with bipolar depression: randomised, double-blind, placebo-controlled study. *Am J Psychiatry* 2005; submitted.

## SCIENTIFIC AND CLINICAL REPORT SESSION 7—DIAGNOSTIC ISSUES

No. 19

### SCREENING FOR HISTORY OF PHYSICAL, EMOTIONAL, AND SEXUAL ABUSE: HOW DO WE ASK ABOUT ABUSE?

Brett D. Thombs, Ph.D. *Johns Hopkins University School of Medicine, Psychiatry and Behavioral Sciences, Johns Hopkins Bayview Medical Center - Burn Center, 4940 Eastern Avenue, Baltimore, MD, 21224*, Roy C. Ziegelstein, M.D., David P. Bernstein, Ph.D., Christine D. Scher, Ph.D., David R. Forde, Ph.D., Edward A. Walker, M.D., Murray B. Stein, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will be able to:

State the estimated prevalence of a history of childhood abuse among adults in medical settings.

Discuss evidence of the relationship between childhood abuse and overall health, healthcare utilization behaviors, health risk behaviors, and specific psychiatric and non-psychiatric medical disorders.

Identify current methods of screening for a history of abuse in medical settings.

Understand strengths and weaknesses of different screening strategies. Specifically, participants will understand how global inquiries about childhood abuse, as compared to specific, behaviorally descriptive inquiries, reduce the likelihood of disclosure of childhood abuse.

Identify a set of specific screening questions that would be expected, based on evidence, to increase disclosure of abuse history.

## SUMMARY:

Objective: A history of physical or sexual abuse in childhood is thought to be present in 20% to 50% of adult patients in medical settings. The relationship between childhood abuse and adult psychiatric and non-psychiatric medical problems has been established in both clinical and community populations. For this reason, a number of published practice guidelines and recommendations call for the routine assessment of childhood abuse in medical settings. None of these guidelines or recommendations, however, specify best-practice assessment methods. Furthermore, studies that have compared retrospective reports of childhood abuse with prospectively obtained court, clinic, or research records show that retrospective reports involve a substantial rate of false negatives. The objective of this study was to (1) determine if behaviorally specific questions about abuse experiences elicit higher rates of abuse reports than labeling questions using the term "abuse;" and (2) to investigate if the use of broad labeling questions introduces systematic gender-related bias into the assessment process. Method: Random population phone surveys were conducted in Memphis, Tennessee in 1997 (N = 1,007) and 2003 (N = 880). Reports of having experienced specific types of abusive childhood events and reports of having been "abused," using that term, were elicited with the Childhood Trauma Questionnaire (CTQ). The CTQ is a 25-item retrospective self-report questionnaire designed to assess five dimensions of childhood maltreatment: (1) Physical Abuse, (2) Emotional Abuse, (3) Sexual Abuse, (4) Emotional Neglect, and (5) Physical Neglect. Only the three abuse

subscales were used in this study. Estimates of rates of abuse were calculated using specific behaviorally-defined items from the CTQ and separately from a simple item asking whether the respondent had been "abused." Multivariate logistic regression was then used to determine the odds that women, as compared to men, would indicate that they had been "abused," using that term, after adjusting for subjects' scores on the specific behavioral items from the subscale and demographic variables. Results: In both the 1997 and 2003 surveys, the rates of physical (15% and 16%), emotional (29% and 31%), and sexual (9% and 10%) abuse elicited through 3 behaviorally defined items in each abuse category were approximately twice the rates elicited using the labeling terms physically (8% and 8%), emotionally (13% and 15%), or sexually (5% and 5%) "abused." Using reports of behaviorally defined abusive events as the standard, the sensitivity of inquiring using the label "abuse" was very low across abuse categories (.34 to .51). In addition, adjusting for demographics and the number and frequency of reported abusive events, women were much more likely to label themselves as "abused" than men in both samples for any abuse, physical abuse, emotional abuse, and sexual abuse (odds ratios 1.5 to 3.5). Conclusions: Inquiries about childhood abuse that rely upon broad "labeling" questions produce very low rates of reported abuse and are subject to differential response patterns influenced by the gender of the respondent. Assessment of childhood abuse would likely be improved if a brief, behaviorally specific screening instrument were developed and tested.

## REFERENCES:

1. Hardt J, Rutter M: Validity of adult retrospective reports of adverse childhood experiences: Review of the evidence. *J Child Psychol Psychiatry* 2004; 45:260-273.
2. MacMillan HL, Fleming JE, Streiner DL, Lin E, Boyle MH, Jamieson E, Duku EK, Walsh CA, Wong, MY, Beardslee WR, Childhood abuse and lifetime psychopathology in a community sample. *Am J Psychiatry* 2001; 158:1878-1883.

No. 20

### KENNEDY AXIS V: THE NEXT STEP FOR AXIS V?

James A. Kennedy, M.D. *University of Massachusetts Medical School, Psychiatry, 55 Colonial Drive, Shrewsbury, MA, 01545*

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should have an understanding of the major features of the Kennedy Axis V and why it is a better choice for DSM-V's Axis V.

## SUMMARY:

Objective: As the tentative publication date of 2011 for the DSM-V "rapidly" approaches, the Kennedy Axis V (K Axis) is beginning to emerge as the next step for Axis V. In this presentation, many of the features and functions of the K Axis will demonstrate why the K Axis should be the next step for Axis V. The K Axis is a clinical status rating scale that provides a reliable, straightforward, clinically relevant, multidimensional description of patient symptoms and functioning. It is well suited to organizing clinical information, tracking the progress of treatment and, therefore, greatly enhancing DSM-IV's Axis V. It provides behavioral anchors for the rating of the seven "universal functional domains" in psychiatry (Psychological Impairment, Social Skills, Violence, ADL-Occupational Skills, Substance Abuse, Medical Impairment and Ancillary Impairment). In addition to enhancing Axis V, it generates a GAF Equivalent which can be used to substitute for the current Axis V. It goes on to generate a Dangerousness Level, as well as a profile of symptoms and functioning. The K Axis can also act to unify DSM-IV's Multi-axial Diagnostic System, as well as effectively organize information needed for psychiatric treatment planning.

Method: This is a presentation of arguments supporting the use of the Kennedy Axis V. Results: This presentation will present ways in which the Kennedy Axis V has been integrated in various mental health facilities. Conclusions: As the tentative publication date of 2011 for the DSM-V "rapidly" approaches, the Kennedy Axis V (K Axis) is beginning to emerge as the next step for Axis V.

#### REFERENCES:

1. Kennedy, JA: *Mastering The Kennedy Axis V*, Washington, DC, American Psychiatric Publishing, 2003.
2. Kennedy, JA: *Fundamentals of Psychiatric Treatment Planning*, Second Edition, Washington, DC, American Psychiatric Publishing, 2003.

#### No. 21

### **DIMENSIONAL APPROACHES TO DSM AND THE IMPACT ON DIAGNOSTIC INSTRUMENTS**

Maritza Rubio-Stipec, Sc.D. *American Psychiatric Association, Research, 1000 Wilson Boulevard, Suite 1825, Arlington, VA, 22209*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand the dimensional approaches to DSM and its impact on diagnostic instruments

#### SUMMARY:

Objective: The new revision of DSM is considering dimensional measures to enhance the categorical description of disorders. Much of what is known about the prevalence, correlates, and risk factors of disorders in the community has been learned from data gathered using structured diagnostic instruments. Method: This new metric will have an impact on the diagnostic instruments used. Dimensionality can be at the symptom level, criteria level, or at the full spectrum of the disorder. In this presentation, we will address methodological implications of a dimensional approach in the diagnostic instruments used. Results: What are the implications if dimensional measures are used as indicators of the severity of the disorder as contrasted with measures of the risk for the disorder? How close can a dimensional measure tap the categorical diagnosis? Conclusions: Analyses of existing data are presented to illustrate the trade-offs of different approaches.

### **SCIENTIFIC AND CLINICAL REPORT SESSION 8—CONSULTATION-LIAISON PSYCHIATRY**

#### No. 22

### **TEACHING OF PSYCHIATRY IN PRIMARY CARE RESIDENCIES: DO TRAINING DIRECTORS OF PRIMARY CARE AND PSYCHIATRY SEE EYE TO EYE?**

Hoyle Leigh, M.D. *University of California, San Francisco, Psychiatry, 445 South Cedar Avenue, Fresno, CA, 93702*, Ronna Mallios, M.P.H., Deborah C. Stewart, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to: recognize the similarities and differences in views about teaching psychiatry to primary physicians between primary care and psychiatry training directors, and discuss ways of enhancing it.

#### SUMMARY:

Objective: Teaching psychiatry in primary care residencies is an increasingly important task. In a survey of training directors of family

practice (FP), internal medicine (IM), obstetrics and gynecology (OB), and pediatrics (Peds) residency training programs, we reported that FP directors were overall satisfied with their psychiatric training, while a majority of IM, OB, and Peds directors were not. The purpose of this study is to compare the views of psychiatry residency training directors with the responses of the primary care (PC) training directors to the questionnaire about psychiatry training in their institution. Method: A 16 item questionnaire surveying specific areas of training and perceived adequacy of current teaching was distributed to 1,550 US primary care and psychiatry program directors. Results: The response rate was 56%. More than 80% of psychiatry programs had both IM and FP programs in the same institution, and a majority had all four. 94% of psychiatry training directors responded that psychiatry training in their primary care programs was minimal to suboptimal while 64% of FP training directors felt their psychiatry training was optimal to extensive. 81% of IM, OB, and Peds training directors agreed with psychiatry that their training was minimal to suboptimal. 90% of psychiatry training directors and 68% of IM, OB, & Peds were dissatisfied with their institution's psychiatry training in primary care, while over 60% of FP were satisfied. Both primary care and psychiatry training directors agreed that most basic psychiatric skills and diagnoses were taught in the primary care programs. Psychiatry training directors' assessment of teaching of specific skills and diagnoses were similar to that of IM, OB, and Peds training directors, but differed significantly from FP training directors. Conclusions: Psychiatry and primary care training directors, other than FP, generally agree that psychiatry training in PC is inadequate and should be significantly enhanced. There are specific needs for enhancement for FP programs as well.

#### REFERENCES:

1. Hodges B, Inch C, Silver I: Improving the psychiatric knowledge, skills, and attitudes of.
2. Leigh H (Editor): *Biopsychosocial Approaches in Primary Care: State of the Art and*.

#### No. 23

### **UNRECOGNIZED POST-TRAUMATIC SYMPTOMS TRIGGERED BY ROUTINE HOSPITAL CARE IN PATIENTS WITH PREVIOUS TRAUMA HISTORIES**

Sarah Birmingham, M.D. *The George Washington University, Department of Psychiatry, 2150 Pennsylvania Avenue, NW 8th Floor, Deot of Psychiatry, Washington, DC, 20037*, Lynne M. Gaby, M.D., James L. Griffith, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should have improved ability to recognize traumatic responses to routine hospital care in previously traumatized individuals. The participant should be able to screen for these symptoms and provide effective therapeutic interventions during psychiatric consultations in general medical settings.

#### SUMMARY:

Objective: The impact of routine medical hospitalization upon previously traumatized patients has not been systematically studied. This study was conducted to determine the frequency with which psychiatric consultation is requested for unrecognized post-traumatic symptoms in medically-ill hospitalized patients. Method: A retrospective review was conducted of all psychiatric consultations completed in a general hospital during a one year period. Two reviewers independently identified cases in which symptoms prompting the request for psychiatric consultation were found to be due to post-traumatic symptoms triggered by diagnostic procedures, medical treatment, or the medical environment. Results: Of 401 consultations, 18 patients were identified for which post-traumatic symptoms (re-



experiencing, hyperarousal, avoidance, dissociation) had been triggered by routine medical-surgical care and had precipitated the consultation request. In each case, neither the medical team nor the patient had associated the symptoms with the patient's previous history of trauma. Conclusions: Screening for trauma history and identifying traumatic responses to hospitalization stressors should be routinely conducted. The actual prevalence of such patients may be higher than that found here since systematic screening had not been employed for this sample. With accurate diagnosis, trauma-specific interventions, including patient and staff education, cognitive-behavioral de-arousal techniques, and trauma-specific pharmacology can be implemented.

#### REFERENCES:

1. Buckley TC, Green BL, Schnurr PP: Trauma, PTSD, and Physical Health: Clinical Issues. In *Assessing Psychological Trauma and PTSD*, edited by Wilson JP, Keane TM, New York, Guilford Press, 2004, pp 441-465.
2. Kazak AE, Stuber ML, Barakat LP, Meeske K: Assessing posttraumatic stress related to medical illness and treatment: The Impact of Traumatic Stressors Interview Schedule. *Families, Systems & Health* 1996; 14:365-380.

#### No. 24

### IS ASTHMA SEVERITY RELATED TO CURRENT MAJOR DEPRESSIVE EPISODE AND GENERALIZED ANXIETY DISORDER? A CASE-CONTROL STUDY

Claudia Meneses, M.D. *Universidad Autónoma de Bucaramanga, Línea de Salud Mental, Calle 157 No 19-55, Bucaramanga, 057 7, Colombia*, Diana M. Prada, M.D., Adriana M. Martínez, M.D., Claudia Manchego, M.D., Carlos A. Machado-Romero, M.D., Luis A. Díaz-Martínez, M.S., Adalberto Campo-Arias, M.D.

#### EDUCATIONAL OBJECTIVES:

At the end of this presentation all assistants will know the association between asthma severity and major depressive and generalized anxiety disorder.

#### SUMMARY:

**Objective:** To establish the association between the asthma severity and MDD or GAD in adult asthma outpatients in Bucaramanga, Colombia. **Method:** This research used a matched case-control design. Cases (44 patients with severe asthma) were matched with controls (88 patients with mild asthma) according age, sex and socioeconomic status. Psychiatric diagnoses were done using the Structured Clinical Interview for DSM-IV Axis I Disorders-Clinical version (SCID-CV). **Results:** The current prevalences of MDD were 27.2% and 29.5% in patients with mild asthma and patients with severe asthma, respectively (OR=1.12, 95%CI 0.46-2.69). The prevalences of GAD were 43.1% and 45.4% in patients with mild asthma and patients with severe asthma, respectively (OR=1.10, 95%CI 0.49-2.44). **Conclusions:** The asthma severity is not related to MDD or GAD among asthma outpatients from Bucaramanga, Colombia.

#### REFERENCES:

1. 4. Badura K, Brzoza Z, Gorczyca P, Matysiakiewicz J, Hese RT, Rogala B. Anxiety and depression in bronchial asthma. *Psychiatr Pol* 2001; 35:755-62.
2. 6. McLaughlin T, Geissler E, Wan J. Comorbidities and associated treatment charges in patients with Anxiety Disorders. *Pharmacotherapy* 2003; 23:1251-56.

## SCIENTIFIC AND CLINICAL REPORT SESSION 9—PSYCHIATRIC EDUCATION

#### No. 25

### PSYCHIATRIC CMES AND COMMERCIAL BIAS: ARE NEW ACCME STANDARDS EFFECTIVE?

Daniel J. Carlat, M.D. *Tufts University School of Medicine, Psychiatry, PO Box 626, Newburyport, MA, 01950*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to: Describe the process used by the ACCME in accrediting an organization for offering Category 1 CME credit; Explain the updated standards of commercial support recently instituted by the ACCME; Evaluate the evidence regarding whether or not medical education companies are adhering to these new standards.

#### SUMMARY:

**Objective:** To evaluate whether industry-sponsored medical education companies are adhering to new ACCME standards regarding commercial support of CME activities. **Method:** A representative sample of industry-supported CME programs was selected. Selection criteria included:

1. Programs sponsored by major pharmaceutical companies;
2. Programs produced by major medical education communication companies (MECCs);
3. Programs consisting primarily of enduring materials (print, online, or cd-rom);
4. Programs accredited by the ACCME to provide Category 1 CME credit.

**Critical analysis methodology included:**

1. Identification of the sponsored product and primary competing products;
2. Word counts to assess whether disproportionate content space was devoted to the sponsored product;
3. Font and heading analysis to determine whether sponsored products were disproportionately highlighted in the text;
4. Tabulation and analysis of charts and tables to determine whether sponsored products were disproportionately featured therein;
5. Thorough content analysis to determine whether potential disadvantages of sponsored products and potential advantages of competing products were reasonably discussed. **Results:** The following techniques for insertion of marketing content were found to be present in the majority of industry-sponsored CME programs examined:

1. Defining the CME topic in a way that is disadvantageous to competitors.
2. Disproportionately highlighting the sponsored product in the text.
3. Presentation of case studies in which the sponsored product is effective and competing products are less effective.
4. Not mentioning, or minimizing, well-recognized disadvantages of the sponsored product.
5. Padding an article with apparently non-commercial material in order to make an embedded commercial message less apparent. **Conclusions:** Medical education communication companies have found ways to subtly avoid the implementation of ACCME's updated standards of commercial support for CME activities. More vigilant surveillance of CME programs will be required to adequately enforce these standards.

#### REFERENCES:

1. Steinbrook R: Commercial Support and Continuing Medical Education. *N Engl J Med* 2005; 352:534-535.
2. Angell M: *The Truth about Drug Companies*. New York: Random House, 2004.

No. 26

**RELATIONSHIPS BETWEEN SELF-ASSESSMENT SKILLS, TEST PERFORMANCE, AND OTHER VARIABLES IN PSYCHIATRY RESIDENTS**

David J. Lynn, M.D. *Thomas Jefferson University, Psychiatry, 200 N Wynnewood Avenue, A - 113, Wynnewood, PA, 19096-1427, Patrick T. O'Neill, M.D.*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to discuss relationships between self-assessment skills and several variables (including academic test performance, level of training, test-taking experience) in psychiatry residents. Participants should also be able to describe implications of these relationships for educators and training programs.

**SUMMARY:**

**Objective:** Some researchers have seen the capacity for self-assessment in trainees as a special skill, and some reports have concluded that this skill is positively and crucially correlated with academic competence. Thus, it is believed that those trainees who are most deficient in knowledge are least likely to be aware of their limitations. Other researchers have emphasized the impact of statistical regression and other technical considerations in the studies which have led to these conclusions. Our study used a relative-ranking design to measure the accuracy of self-assessments of both strengths and weaknesses in psychiatry residents. We analyzed the relationships between indices of self-assessment accuracy and other resident characteristics, particularly current academic strength as measured by a standard test of psychiatric knowledge. We aimed to specifically test the hypothesis that trainees who show the least academic mastery also make the most inaccurate self-assessments. **Method:** A total of 56 residents in two general psychiatry programs evaluated their performance on the Psychiatry Resident in Training Examination by estimating the rank order of their scores in the eleven psychiatry subject areas. For each resident, actual examination results were then used to generate measures of the accuracy of the identification of strengths and weaknesses. **Results:** Residents' identifications of their strengths and weaknesses were significantly more accurate than chance levels. Strengths and weaknesses were identified with roughly equal proficiency, and accuracy in these assessments was not correlated to any of the following variables: academic competence as measured by examination raw scores, postgraduate year, gender, international versus American medical education, program membership, or age. **Conclusions:** Our results do not support the hypothesis that trainees who show the least academic mastery also make the most inaccurate self-assessments. In addition, we found no resident characteristics that accounted for variation in self-assessment accuracy.

**REFERENCES:**

1. Kruger J, Dunning D: Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. *J Pers Soc Psychol* 1999; 77:1121-1134.
2. Hodges G, Regehr G, Martin M: Difficulties in recognizing one's own incompetence: novice physicians who are unskilled and unaware of it. *Acad Med* 2001; 76(10 suppl):S87-S89.

No. 27

**COACHING COMMUNICATION USING STANDARDIZED PATIENT ENCOUNTERS: AN EDUCATIONAL RESEARCH STUDY**

Paula Ravitz, M.D. *University of Toronto; CAMH, Psychiatry, 27 Belsize Drive, Toronto, Ontario, ON, M4S 1L3, Canada, William*

Lancee, Ph.D., Robert Maunder, M.D., Molyn Leszcz, M.D., Jiahui Wong, M.D., Nancy L. McNaughton, M.Ed., Allan D. Peterkin, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to:

Understand the educational challenges of learning therapeutic communication with difficult patients.

Appreciate the effectiveness of using simulated patients and coaching with videotape review to address these challenges.

**SUMMARY:**

**Objective:** The objective of this study is to determine the impact of a brief, intensive, manualized medical education research intervention with ACT team workers, psychiatry and family medicine residents. The intervention is designed to: improve therapeutic communication skills, better manage difficult patient situations and increase confidence in practice

The project involves 1-on-1 coaching by experienced psychotherapy supervisors using videotaped encounters with actors who simulate 'difficult' patients with embedded empathy challenges. The intervention aims to provide an optimal learning milieu for trainees while avoiding exposing patients to therapeutic errors. **Method:**

Trainees had five, once weekly, 30-minute videotaped interviews with simulated patients (SP) who portrayed commonly encountered psychiatric clinical challenges and difficult patients. Each trainee received feedback from the SP's in addition to a one hour coaching session on a videotape of each of the first four interviews. Coaches reviewed the taped interview in full immediately prior to the coaching session.

Evaluations were confidential. Measures of empathy, communication skills and therapeutic alliance were collected including: The Staff Patient Interaction Response Scale (SPIR) (Gallop, Lancee & Garfinkel, 1990), Physician-Patient Interaction Checklist (Lehmann, et al 1990), Modified Empathy Scale (Burns, 1996) (session feedback form rated by SP), Counseling Self-Estimate Inventory (L.M. Larson 1990) and Qualitative post-intervention interviews.

**Results:** The sample of 22 subjects included 13 psychiatry and family medicine residents (age 27.6+1.9) and 9 ACT team members (age 40.8+7.1), of which 12 were male and 10 were female. 110 videotaped SP interviews were conducted along with 88 coaching sessions. There was excellent retention of subjects and coaches, with only one subject dropping out prior to the intervention.

There were significant pre-post improvements in the Counseling Self-Estimate Inventory scores ( $p < 0.001$ ). After dividing the sample by baseline level of skills, it was found that those at the lowest skill level demonstrated higher confidence than expected and that improvements in this group of trainees consisted of moving away from dismissive, negating therapeutic interactions. Trainees at higher baseline level of skill, tended to gain confidence over the intervention period. **Conclusions:** All aspects of the intervention were acceptable including the use of standardized patients, videotape, coaching and assessment. Confidence of the entire sample significantly improved with this intervention. However, it became clear that therapeutic communication competence has two components - skill and confidence. Confidence (self-rating of skill) can be deceptive. For some, a good outcome might involve losing confidence as they gain insight into their deficits, whereas for others, a good outcome might involve gaining confidence in skills they have. The guided review of video with coaches, was felt to be critical to increase the correlation between skill and confidence.

Limitations of this study include small sample size, need for controls, external raters and longer-term follow up, all of which are being addressed with further study.

**REFERENCES:**

1. Ravitz P, Silver I. Advances in psychotherapy education. *Can J Psychiatry* 2004; 49(4):167-174.

2. Schon DA: Educating the reflective practitioner: toward a new design for teaching and learning in the professions. San Francisco (CA), Jossey Bass Publishers, 1987.

## SCIENTIFIC AND CLINICAL REPORT SESSION 10—BIOLOGICAL PSYCHIATRY AND NEUROSCIENCE

### No. 28 FROM SYNAPSE TO PSYCHOTHERAPY: THE FASCINATING EVOLUTION OF NEUROSCIENCE

Bernadette Grosjean, M.D. *Harbor UCLA, Psychiatry, 1000 West Carson, Box 497, Torrance, CA, 90509*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant should be able to identify new potential biological mechanisms underlying psychotherapeutic processes. The participant should also have a better understanding of recent advances in neuroscience, including insights in neuroplasticity, priming, implicit and explicit memory, and mentalization processes.

#### SUMMARY:

**Objective:** To review neuroscientific advances across therapeutic disciplines in order to gain new insights into the understanding of the biology of the psychotherapeutic processes. **Method:** In order to understand the *modus operandi* of psychotherapy, the evolution of the biology of psychotherapy is reviewed. The mechanisms involved in learning processes, such as memory and priming, attachment, and long-term consequences of early life trauma, are examined. Finally, the effects of environmental changes on brain structures are explored.

**Results:** Verbal and non-verbal aspects of the psychotherapeutic process mediate their therapeutic effects through biological changes as they, implicitly and explicitly, stimulate mentalization processes, and, to a degree, remodel primitive emotional reflexes (mediated, for example, by amygdala and hypothalamic-pituitary-adrenal axis (HPA) activation). **Conclusions:** Psychotherapy may be considered as a form of implicit (procedural) and explicit (cognitive) learning through the development of a patient-therapist relationship. Learning during psychotherapy involves multiple mechanisms, including verbal and non-verbal interactions. As a result, the therapist's commitment and reliability are as important as the therapist's intellectual and technical skills. This dependability and consistency of the therapist may eventually lead to a *psycho-neuro-biological* revision of initial pathological patterns in psychiatric patients.

#### REFERENCES:

1. Kandel, E. R. (2005). *Psychiatry, psychoanalysis, and the new biology of mind*. Washington, DC, American Psychiatric Pub. XV-XXVI.
2. Amini, F., Lewis, T., Lannon, R., Louie, A., Baumbacher, G., McGuinness, T., et al. (1996). Affect, attachment, memory: contributions toward psychobiologic integration. *Psychiatry*, 59, 213-239.

### No. 29 CAN NEUROLOGICAL SOFT SIGNS DISCRIMINATE BETWEEN FOUR AXIS-I DIAGNOSTIC CATEGORIES IN THE PRISON POPULATION?

Seyed Mohammad Assadi, M.D. *Tehran University of Medical Sciences, Psychiatry, South Kargar Avenue, Roozbeh Psychiatric Hospital, Tehran, 13337, Iran (Islamic Republic of)*, Mohammad Reza Nakhaei, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize that each domain of neurological abnormalities is associated with certain psychiatric diagnoses and that soft signs may help to differentiate between some psychiatric disorders in prison population.

#### SUMMARY:

**Objective:** Neurological soft signs (NSS) are prevalent in offenders and in patients with different psychiatric disorders. The current study was conducted to find an interpretable pattern of NSS in offenders with different Axis I diagnoses and to investigate the possible value of these abnormalities in psychiatric diagnosis. **Method:** Through stratified random sampling, 351 Iranian prisoners were selected and assessed using the clinical version of the Structured Clinical Interview for DSM-IV Axis I disorders (SCID-I) and the Neurological Evaluation Scale (NES). Four major Axis I diagnostic categories (i.e. psychotic disorders, mood disorders, anxiety disorders, and substance use disorders) were used for data analysis. Multiple regression analyses with backward removal method were used to find the best model that adequately accounts for each subscale of the NES. The specificity and sensitivity of the NES subscales were assessed using the receiver operating characteristics (ROC) curve approach. **Results:** Scores on sensory integration and sequencing of complex motor acts were best predicted by psychotic and substance use disorders, scores on motor coordination by anxiety disorders, and scores on miscellaneous tests by psychotic and anxiety disorders. However, in terms of sensitivity and specificity, no NES subscale could be considered as a diagnostic test for psychiatric disorders. **Conclusions:** There were distinct patterns of association between neurological abnormalities and psychiatric diagnoses. Therefore, soft signs may help to differentiate between some psychiatric disorders in prison population. However, psychiatric diagnosis cannot be made based on these abnormalities alone.

#### REFERENCES:

1. Bombin I, Arango C, Buchanan RW: Significance and meaning of neurological signs in schizophrenia: two decades later. *Schizophr Bull* (in press).
2. Keshavan MS, Sanders RD, Sweeney JA, Diwadkar VA, Goldstein G, Pettegrew JW, Schooler NR: Diagnostic specificity and neuroanatomical validity of neurological abnormalities in first-episode psychoses. *Am J Psychiatry* 2003; 160:1298-1304.

### No. 30 AN ASSOCIATION STUDY OF A BRAIN-DERIVED NEUROTROPHIC FACTOR VAL66MET POLYMORPHISM AND ZOTEPINE RESPONSE OF INPATIENTS WITH ACUTE SCHIZOPHRENIA

Ching-Hua Lin, M.D. *Kai-Suan Psychiatric Hospital, Department of Adult Psychiatry, No.130, Kai-Suan, 2 Rd, Kaohsiung, 802, Taiwan Republic of China*, Li-Shiu Chou, M.D., Chieh-Hsin Lin, M.D., Ming-Chao Chen, M.D., Gwo-Jen Wei

#### EDUCATIONAL OBJECTIVES:

An Association Study of a Brain-derived neurotrophic factor Val66Met Polymorphism and Zotepine Response of Acute Schizophrenic Inpatients.

**Objective:** A growing body of evidence suggests the involvement of brain-derived neurotrophic factor (BDNF) in both antipsychotic action and schizophrenia pathogenesis. The purpose of this study is to test the hypothesis that the BDNF-gene Val66Met polymorphism is associated with acute schizophrenia and zotepine clinical response.

**Method:** Zotepine is an atypical antipsychotics with high affinity for 5-HT<sub>2A</sub>, 5-HT<sub>2C</sub>, D<sub>2</sub>, D<sub>3</sub>, and D<sub>4</sub> receptors. To identify any genetic predisposition to clinical response of zotepine, we studied the BDNF-gene Val66Met polymorphism in 90 acutely ill schizophrenic

inpatients, receiving 4 weeks of fixed dose zotepine treatment (150mg/d), Symptom severity was assessed by Brief Psychiatric Rating Scale (BPRS) ratings at baseline and weekly. Repeated-measures analyses of variance were used to test where the different gene polymorphism affects the BPRS score change.

Results: There is no significant difference in 4-week score change of BPRS positive symptoms ( $p=0.520$ ), negative symptoms ( $p=0.206$ ), or total score ( $p=0.413$ ) among the groups. But significant difference exists in 4-week score change of BPRS general symptoms ( $p=0.006$ )

Conclusion: Our finding suggests that this BDNF-gene Val66Met polymorphism may be related to BPRS general symptoms changes in acutely ill schizophrenia, like somatic concern, anxiety, guilt, tension, and depressed mood.

#### SUMMARY:

Objective: A growing body of evidence suggests the involvement of brain-derived neurotrophic factor (BDNF) in both antipsychotic action and schizophrenia pathogenesis. The purpose of this study is to test the hypothesis that the BDNF-gene Val66Met polymorphism is associated with acute schizophrenia and zotepine clinical response. Method: Zotepine is an atypical antipsychotics with high affinity for 5-HT<sub>2A</sub>, 5-HT<sub>2C</sub>, D<sub>2</sub>, D<sub>3</sub>, and D<sub>4</sub> receptors. To identify any genetic predisposition to clinical response of zotepine, we studied the BDNF-gene Val66Met polymorphism in 90 acutely ill schizophrenic inpatients, receiving 4 weeks of fixed dose zotepine treatment (150mg/d), Symptom severity was assessed by Brief Psychiatric Rating Scale (BPRS) ratings at baseline and weekly. Repeated-measures analyses of variance were used to test where the different gene polymorphism affects the BPRS score change. Results: There is no significant difference in 4-week score change of BPRS positive symptoms ( $p=0.520$ ), negative symptoms ( $p=0.206$ ), or total score ( $p=0.413$ ) among the groups. But significant difference exists in 4-week score change of BPRS general symptoms ( $p=0.006$ ) Conclusions: Our finding suggests that this BDNF-gene Val66Met polymorphism may be related to BPRS general symptoms changes in acutely ill schizophrenia, like somatic concern, anxiety, guilt, tension, and depressed mood.

#### REFERENCES:

1. Takahashi M, Shirakawa O, Toyooka K: Abnormal expression of brain-derived neurotrophic factor and its receptor in the corticostriatal system of schizophrenic patients. *Mol Psychiatry* 2000; 5:293-300.
2. Hong CJ, Yu YWY, Lin CH, Tsai SJ: An association study of a BDNF Val66Met polymorphism and clozapine response of schizophrenic patients. *Neurosci Lett* 2003; 349:206-208.

## SCIENTIFIC AND CLINICAL REPORT SESSION 11—GERIATRIC PSYCHIATRY

No. 31

### THE INFLUENCE OF DEMENTIA ON THE TREATMENT OF DEPRESSION IN GERIATRIC INPATIENTS

Karen Blank, M.D. *Institute of Living/Hartford Hospital, Psychiatry, 200 Retreat Avenue, Research Building 6th Floor, Hartford, CT, 06106*, Bonnie L. Szarek, R.N., John W. Goethe, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

Better able to select treatments found to be effective for depressed inpatients that are nondemented as well as those with major depression and dementia or dementia with depressed mood.

Elicit the presence of medical conditions that are more prevalent in depressed elderly patients with dementia.

Identify depressed older patients who are at increased risk for requiring hospital readmission.

#### SUMMARY:

Objective: To determine the influence of dementia on the treatment of depression in geriatric inpatients. Method: Retrospective chart review of all admissions aged  $\geq 65$  between 1/1/2000 and 12/31/2004 to identify those with major depressive disorder with dementia ( $n=87$ ), MDD without dementia ( $n=381$ ), and dementia with depressed mood ( $n=101$ ). The groups were compared on clinical and treatment variables using descriptive statistics, chi square, and logistic regression. Results: Compared to patients with dementia, non-demented patients were more likely to receive ECT (27.0% versus 6.9%  $p<.001$ ) and TCAs (14.2% versus 2.7%,  $p<.001$ ) and less likely to receive antipsychotics (48.8% versus 72.3%,  $p<.001$ ), anticonvulsants (7.1% versus 12.8%,  $p=.026$ ) or trazodone (6.0% versus 11.7%,  $p=.019$ ). Rates of heart failure, diabetes mellitus, and hypertension differed significantly among groups with highest rates in the dementia with depressed mood group ( $p's <.01-.001$ ). Length of stay (mean = 17.3 days) was not significantly different among groups. Readmission, occurring in 20.5%, was predicted by vascular dementia (OR=2.23), MDD with psychotic features (OR=2.12) and personality disorder (OR=1.85). Conclusions: Among geriatric patients with depression, having vascular dementia more than doubles the odds of readmission. The treatment of depression differed for the non-demented patients and this group had significantly fewer medical co-morbidities.

#### REFERENCES:

1. Roose SP, Schatzberg AF: The efficacy of antidepressants in the treatment of late-life depression. *J Clin Psychopharm* 2005;25:S1-7.
2. Mamdani MM, Parish SV, Austin PC, et al. Use of antidepressants among elderly subjects: trends and contributing factors. *Am J Psychiatry* 2000;157:360-367.

No. 32

### OVERALL EFFICACY AND TIME TO RESPONSE FOR DULOXETINE 60MG ONCE DAILY VERSUS PLACEBO IN ELDERLY PATIENTS WITH MDD

Ira R. Katz, M.D. *Philadelphia, PA*, Joel Raskin, M.D., Jimmy Y. Xu, Ph.D., Daniel K. Kajdasz, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the end of this presentation, the participant should recognize the treatment benefits and time course of symptom improvement associated with duloxetine in the treatment of depression and pain in elderly patients with MDD.

#### SUMMARY:

Objective: To compare efficacy and time to response of duloxetine with placebo in depression and associated pain symptoms in elderly patients. Method: Results are based on *a priori* and post-hoc analyses from a double-blind trial of MDD patients > 65 randomized 2:1 to duloxetine 60 mg QD ( $n=207$ ) or placebo ( $n=104$ ) for 8 weeks. Efficacy was assessed comparing least-squares-mean-change from baseline to endpoint in the Geriatric Depression Scale (GDS), HAMD<sub>17</sub>, CGI-S, and visual analogue scales (VAS) for pain. The onset of response and remission was evaluated using categorical repeated measures and proportional hazards modeling, plus Kaplan-Meier estimation. Results: Duloxetine-treated patients demonstrated significantly greater mean changes in GDS, HAMD<sub>17</sub>, CGI-S, and VAS back pain and pain while awake scores. Statistically significant sustained improvements of estimated HAMD<sub>17</sub> response and remission rates for duloxetine started at week 2 ( $P=.022$ , and  $P=.033$ , respectively). Time to HAMD<sub>17</sub> response and remission were signifi-

cantly reduced for duloxetine ( $P < .001$  and  $P = .004$ , respectively). Duloxetine-referenced hazard ratios for HAMD<sub>17</sub> response and remission were 2.03 ( $P = 0.002$ ) and 2.01 ( $P = 0.006$ ), respectively. Results for GDS-based response and remission rates were consistent with the HAMD<sub>17</sub> findings. Conclusions: Duloxetine demonstrated a rapid and sustained antidepressant effect and improvement in pain measures in elderly patients.

#### REFERENCES:

1. Hirschfeld RM, Mallinckrodt C, Lee TC, Detke MJ. Time course of depression-symptom improvement during treatment with duloxetine. *Depress Anxiety*. 2005; 21(4):170-177.
2. Whyte EM, Dew MA, Gildengers A, Lenze EJ, Bharucha A, Mulsant BH, Reynolds CF. Time course of response to antidepressants in late-life major depression: therapeutic implications. *Drugs Aging* 2004; 21:531-554.

#### No. 33

### SAFETY AND EFFICACY OF INTRA-MUSCULAR ZIPRASIDONE TREATMENT OF ACUTE PSYCHOTIC AGITATION IN ELDERLY PATIENTS WITH SCHIZOPHRENIA

Alex Aviv, M.D. *Abrabanel Mental HC, 6b, 15 KKL st., Bat-Yam, 59100, Israel*, Yoram Barak, M.D., Yehuda Baruch, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to evaluate agitation in elderly schizophrenic patients and to manage this important issue appropriately using both oral and IM preparations.

#### SUMMARY:

**Objective:** Intramuscular (IM) Ziprasidone treatment has been shown to be effective and well tolerated in reducing the symptoms of acute psychosis in adults. However, only few data are available as to safety in the elderly. The growing utilization of health services by elderly psychiatric patients warrants an evaluation in this population. Although it's been previously shown that long-term treatment with Second generation antipsychotics (SGA) confers benefits to elderly schizophrenia patients, the management of acute agitation in older patients has not yet been addressed specifically. Thus, the aim of the present study was to evaluate the safety and efficacy of ziprasidone IM in elderly schizophrenia patients hospitalized during an agitated psychotic exacerbation of their illness. **Method:** 21 elderly patients (6 male, 15 female, mean age 71.4 + 1.3 years, range: 60-81) admitted to a psychogeriatric ward in a large, university-affiliated tertiary psychiatric center were treated by Ziprasidone IM for acute psychotic agitation. Only patients with acute psychosis related to schizophrenia or schizoaffective disorders defined by DSM-IV were allowed to enter the study. The patients received 3 days of flexible-dose Ziprasidone IM. Following an initial dose of 10-20 mg, a subsequent dose of 10-20 mg could be given after 12 hours if needed (maximum daily dose = 40 mg). **Outcome measures:** Safety is the pre-defined primary outcome and efficacy the secondary outcome. All assessments of safety were made according to a pre-defined schedule: baseline, once every 24 hours and at endpoint. All treatment emergent side-effects and adverse events along with the investigators' assessments of severity were systematically recorded. The Brief Psychiatric Rating Scale (BPRS) and the Behavioral Activity Rating Scale (BARS) were the secondary outcomes. **Results:** All twenty-one patients had completed the 3 days Ziprasidone IM treatment. There was one adverse event in a patient with untreated benign prostatic hypertrophy who developed urinary retention. Two side-effects, of mild severity, that resolved spontaneously, were observed; blurred vision and sedation. The BPRS decreased by 26.8 points after 3 days of treatment ( $p = 0.001$ ). The BARS score, reflecting

agitation, decreased significantly after each injection reaching maximal decrease of 2.14 points at completion of study ( $p = 0.001$ ). **Conclusions:** The successful management of an acute psychotic episode in which patients are highly agitated and distressed is often a critical determinant outcome especially in elderly patients. There are two limitations that need be acknowledged, this was an open-label study and sample size was modest. However, our findings are in line with both reports of similar studies with younger patients or studies of olanzapine IM with population of mixed age groups. We may conclude that Ziprasidone IM is safe, tolerable and efficacious in the management of acute psychotic agitation amongst elderly schizophrenia patients.

This study was supported by an unrestricted grant from Pfizer Pharmaceuticals Ltd.

#### REFERENCES:

1. Barak Y, Shamir E, Mirecki I, Weizman R, Aizenberg D: Switching elderly chronic psychotic patients to olanzapine. *Int J Neuropsychopharmacol* 2004;7:165-169.
2. Brook S: Intramuscular ziprasidone: moving beyond the conventional in the treatment of acute agitation in schizophrenia. *J Clin Psychiatry* 2003;64 (Suppl 19):13-18.

## TUESDAY, MAY 23, 2006

### SCIENTIFIC AND CLINICAL REPORT SESSION 12—GENDER DIFFERENCES IN CHILD AND ADOLESCENT BEHAVIORS

#### No. 34

### PREDICTION OF SUICIDALITY AND VIOLENCE IN HOSPITALIZED ADOLESCENTS: COMPARISONS BY GENDER

Daniel F. Becker, M.D. *Mills-Peninsula Medical Center, 1783 El Camino Real, Burlingame, CA, 94010*, Carlos M. Grilo, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize some of the psychological predictors of suicidality and violent behavior in hospitalized adolescents, and how these predictors differ according to gender.

#### SUMMARY:

**Objective:** The authors examined psychological correlates of suicidality and violent behavior in hospitalized adolescents, and the extent to which these associations may be affected by gender. **Method:** Four hundred eighty-seven psychiatric inpatients (207 males, 280 females), ages 12-19, completed a battery of psychometrically-sound, self-report measures of psychological functioning, substance abuse, suicidality, and violent behavior. Multiple regression analyses were conducted to determine the joint and independent predictors of suicide risk and violence risk. Subsequent analyses examined these associations in males and females separately. **Results:** Multiple regression analysis revealed that nine variables (gender, age, hopelessness, low self-esteem, depression, impulsivity, alcohol abuse, drug abuse, and violence risk) jointly predicted suicide risk ( $R^2 = .67$ )--and that an analogous model predicted violence risk ( $R^2 = .40$ ). However, several differences were found with respect to which variables made significant independent contributions to these two predictive models. Female gender, low self-esteem, depression, drug abuse, and violence risk made independent contributions to suicide risk. Male gender, younger age, hopelessness, impulsivity, drug

abuse, and suicide risk made independent contributions to violence risk. Additional differences were observed when males and females were considered separately. Conclusions: We found overlapping but distinctive patterns of prediction for suicide risk and violence risk, as well as some differences between males and females. These results may reflect distinct psychological and behavioral pathways for suicidality and violence in adolescent psychiatric patients--and differing risk factors for males and females. Such differences have potential implications for prevention and treatment programs.

#### REFERENCES:

1. Apter A, Plutchik R, van Praag HM: Anxiety, impulsivity and depressed mood in relation to suicidal and violent behavior. *Acta Psychiatr Scand* 1993; 87:1-5.
2. Vermeiren R, Schwab-Stone M, Ruchkin VV, King RA, Van Heeringen C, Deboutte D: Suicidal behavior and violence in male adolescents: a school-based study. *J Am Acad Child Adolesc Psychiatry* 2003; 42:41-48.

#### No. 35

### DAILY CIGARETTE SMOKING AMONG COLOMBIAN HIGH SCHOOL STUDENTS: GENDER RELATED FACTORS

Jorge A. Martínez-Mantilla *Universidad Autónoma de Bucaramanga, Línea de Salud Mental, Calle 157 No 19-55, Bucaramanga, 57 7, Colombia*, Walter Amaya-Naranjo, Horacio A. Campillo, Luis A. Díaz-Martínez, M.S., Adalberto Campo-Arias, M.D.

#### EDUCATIONAL OBJECTIVES:

Participants will make differences the pattern of daily cigarette smoking among Colombian girls and boys.

#### SUMMARY:

**Objective:** To establish the prevalence of the daily cigarette smoking (DCS) and its gender correlated factors in high school attending adolescents from Bucaramanga, Colombia. **Method:** A probabilistic sample was surveyed (N=2291). Students filled out the Questionnaire for Epidemiological Surveillance Improper Substance Use, the CAGE questionnaire for abusive alcohol consumption, and the SCOFF questionnaire for screening eating disorders. Logistical regression analysis was used for controlling confounding factors. **Results:** The last month DCS prevalence was 7.7% (95% CI 6.6-8.8), 11.6% (95% CI 9.7-13.5) in boys and 4.4% (95% CI 3.3-5.5) in girls; this difference was significant (PR=2.81, 95% CI 2.02-3.90). In girls, the DCS was associated with any substance use during the last month (OR=8.13, 95% CI 3.52-18.87), abusive alcohol consumption, CAGE positive (OR=5.88, 95% CI 2.54-13.70), being the best friend of a smoker (OR=3.25, 95% CI 1.38-7.63), and a poor or mediocre academic achievement (OR=2.46, 95% CI 1.25-4.85). In boys, the DCS was related to the use of any substance during the last month (OR 6.23, 95% CI 3.62-10.71), being the best friend of a smoker (OR=5.87, 95% CI 2.93-11.76), poor or mediocre academic achievement (OR 2.09, 95% CI 1.34-3.24), and being older than non-smokers (OR=1.48, 95% CI 1.21-1.81). The DCS was independent to SCOFF questionnaire scores in both boys and girls. **Conclusions:** These findings exhibit an important prevalence of the DCS in adolescent with similar associated factors for girls and boys. More investigation is needed.

#### REFERENCES:

1. 2. Mowery PD, Farrelly MC, Haviland L, Gable JM, Wells HE. Progression to established smoking among US youth. *Am J Public Health* 2004; 94: 331-337.
2. 3. Global Youth Tobacco Survey Collaborating Group. Differences in worldwide tobacco use by gender: findings from Global Youth Tobacco Survey. *J Sch Health* 2003; 73: 207-215.

#### No. 36

### SUBTYPES OF AGGRESSION: INCIDENCE AND GENDER DIFFERENCES IN ADOLESCENTS

Melissa McMullin, B.A. *PGSP-Stanford Psy.D. Consortium, 1631 Tawnygate Way, San Jose, CA, 95124*, Arne Popma, M.D., Nirranjan S. Karnik, M.D., Katie Araujo, Ph.D., Hans Steiner, M.D.

#### EDUCATIONAL OBJECTIVES:

1. To update the practitioner on advances in aggression research in adolescents supporting overlapping but distinct dimensions and types of maladaptive aggression.
2. To discuss implications for diagnosis and treatment.

#### SUMMARY:

**Objective:** To assume that PIP and RADII are independent of delinquent behavior and aggressive behavior, such that one can exhibit RADII aggression while engaging in delinquent behavior and vice versa. Also, to assess the applicability of the two factor model of aggression to high school sample, as well as attempt to discern adolescent aggression-type differences relative to gender. **Method:** 1536 ethnically diverse adolescents, with a mean age of 15(SD=3), 810 females and 639 males, were administered the Youth Self Report (YSR) Questionnaire. The sample has been previously been described in detail in Steiner, Araujo, and Koopman (2001). Two independent experts in the field rated aggression and delinquency subscale items on the YSR as either PIP (kappa=.748;  $\alpha$ =.797) or RADII (kappa= .748;  $\alpha$ =.778). **Results:** When coding the top 2% of the sample, paralleling the clinical procedure on the YSR, the mean for score for RADII was 8.74 (SD=4.03; range=0-25) and the mean for PIP was 4.27 (SD=3.83; range=0-22). The incidence of RADII only aggression was 1.9%, PIP only aggression 1.3%, and both RADII and PIP aggressors represented 1.2%. Suggesting 4.4% of the high school sample exhibited clinically significant maladaptive aggression. Incidence of aggression type significantly related when comparing the high school sample to the delinquent sample ( $p<.0001$ ). A pronounced gender difference emerged whereby 2.7% ( $p=.002$ ) of the female sample exhibited RADII only aggression versus 1% of the male sample. The mean score discrepancy for females and males on PIP, 3.79 and 4.79 respectively, was statistically significant ( $t=2.146$ ;  $p<.001$ ). RADII mean scores of 8.9 for females and 8.46 for males were also statistically significant ( $t=-4.98$ ;  $p=.032$ ), but to a less degree than with PIP. Incidence of PIP only aggression was more common for males at 2.2% in comparison to 0.4% females. Incidence of mixed aggression type (RADII and PIP) was comparable for both genders, representing .9% of the females and 1% of the males. **Conclusions:** The findings support a two factor model of aggression, whereby PIP and RADII are related, but separate, forms of aggression, with neither PIP nor RADII being exclusively defined as delinquent behavior versus aggressive behavior. These findings replicate previous results in delinquents and high school samples, with refined measurement and support the division of aggression in its adaptive and maladaptive form, as suggested by neuroscience. While, clinically, pathological aggressors within the normative adolescent sample were not common, there were gender differences for those who did exhibit clinically significant maladaptive aggressive behavior. Females were more likely to engage in reactive aggression, and males more often exhibited proactive aggression. The incidence of adolescents exhibiting both PIP and RADII aggression types was similar for both females and males. The results suggest that clinical treatment that addresses aggression universally may not effectively treat individuals exhibiting a particular aggression type. These findings have implications for diagnosis and treatment, suggesting that we consider these subtypes separately as we create an improved taxonomy of aggression.

## REFERENCES:

1. Achenbach TM: Manual for the Youth Self-Report and 1991 profile. Burlington, VT, Department of Psychiatry, University of Vermont, 1991.
2. Conner DF: Aggression & Antisocial Behavior in Children and Adolescents 'Research and Treatment. New York: The Guilford Press, 2002.

## SCIENTIFIC AND CLINICAL REPORT SESSION 13—VIOLENCE, TRAUMA, AND VICTIMIZATION

No. 37

### TERRORISM: A PHENOMENON AT THE INTERFACE BETWEEN INDIVIDUAL AND GROUP PSYCHOLOGY

David A. Rothstein, M.D. *Swedish Covenant Hospital, psychiatry,  
2851 West Bryn Mawr, Chicago, IL, 60659-4810*

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be better able to (1.) understand phenomena at the interface between individual and group behavior, (2.) recognize the importance of psychiatry in understanding terrorism, (3.) be aware of how the role of psychiatry applied to public events differs from its role in the clinical situation, (4.) understand how private determinants of behavior manifest in public events, (5.) be familiar with several concepts from other fields and how they can help understand the psychology of terrorists, (6.) perceive how terrorist behavior shares similarities with much nominally normal behavior.

## SUMMARY:

Objective: The events of September 11, 2001 have made it imperative to understand the psychology of terrorists. Psychiatry has a role to play in this important enterprise, but the role differs from that of psychiatry in a clinical situation. Terrorism is a violent phenomenon bridging the interface between individual and group psychology, between individual behavior and public events. Working out useful methods for the study of phenomena at this interface deserves a high priority. Method: This paper further develops the ideas concerning terrorism presented by the author at the 2004 APA Annual Meeting, and draws upon the author's experience studying violence, beginning as consultant to the Warren Commission and the Eisenhower Commission. To understand terrorism, we must study a number of subsidiary matters. We want to understand the terrorist. We need to understand the factors in his or her milieu which influence the decision to accept radical ideology, to become and remain a terrorist, and to commit terrorism. Concepts from other fields, such as cultural analysis, extended phenotype theory, humanities, religion and divinity studies, sociology (social identity, system justification, social dominance, and terror management theory), information theory, education, and history are used in conjunction with psychiatry to help in understanding the genesis of terrorism. Such concepts include: "extrapsychic levels," cultural discourse, "memes," group identity, the role of the "other," ethnicity and nationalism, "chosen traumas," psychogeographic and psychohistorical fantasies, the role of violence in identity formation, transcendence and ecstatic experience, the concept of Satan, education and indoctrination, existential and religious terror, and "costly ritual theory." Results: Individuals and groups are influenced by factors of which they are not aware, but this is not necessarily the same as the psychoanalytic idea of the unconscious. Terrorist behavior, such as suicide bombing, draws fragments from behaviors which are often accepted by large groups of people. Such behaviors include those of Japanese internet suicide clubs, Buddhists carrying out self immolation during the Viet Nam

war, early Christian martyrs, political assassins, skyjackers, inner city gangs, and soldiers exhibiting military valor. Terrorist groups share similarities in ideology to 20<sup>th</sup> century totalitarian regimes. Individuals in other non-Western societies which have historically interacted with, and been dominated by, the West have reacted in ways that illuminate the motivations of Islamist terrorists. Conclusions: Investigation of the phenomenon of terrorism takes us to a number of points where transactions across the interface between individual and group psychology and behavior occur. The study provides a scaffold on which to build future research. The author develops some new terminology of "extrapsychic levels" based upon information theory, analogous to the intrapsychic levels of conscious, preconscious, and unconscious.

The answers we discover apply beyond the immediate question of terrorism. They also apply to the problems of large scale violence such as ethnic and religious conflict and international war. They relate to fundamental human concerns which have occupied and preoccupied humanity's thoughts and feelings throughout history - concerns such as the need to accept and come to terms with the fact of our mortality.

## REFERENCES:

1. Post, Jerrold M.; Sprinzak, Ehud; and Denny, Laurita M. *fThe Terrorists in Their Own Words: Interviews with 35 Incarcerated Middle Eastern Terrorists.* In *Terrorism and Political Violence*. Vol. 15, No. 1, Spring, 2003, pp 171-184.
2. Rothstein, DA: *Lethal Identity: Violence and Identity Formation*. In *Trauma and Adolescence*, Ed Sugar M, Monograph Series of the International Society for Adolescent Psychiatry, Vol 1, Madison, CT, International Universities Press, 1999, pp 225-250.

No. 38

### THE ROLE OF THE PSYCHIATRIST IN HOSPITAL EMERGENCY PLANNING

Julia B. Frank, M.D. *George Washington University, 2150 Pennsylvania Avenue NW, AN8411, Washington, DC, 20037*

## EDUCATIONAL OBJECTIVES:

- At the end of this presentation participants will
- 1) understand the function of hospital emergency planning committees in disaster response preparation
  - 2) Understand the potential contributions that psychiatrists can make in preparing hospitals to respond to emergencies and disasters

## SUMMARY:

Objective: To inform colleagues of the possible contribution they can make to emergency preparedness by volunteering for hospital emergency planning committee assignment.. Method: Review of experience in hospital emergency planning at a major urban teaching hospital that has responded to both natural disasters and terrorist events within the past two years. Results: Psychiatrists can offer unique expertise in risk communication, patient education about stress responses, appropriate triage for distressed victims of disaster, and support of responding personnel. Conclusions: Hospitals are major gathering points for victims of disasters, both man made and natural in origin. Disasters have a wide range of known psychological and behavioral consequences, ranging from normal, brief stress responses to PTSD and other major disorders. Preplanning for disasters is essential, and hospitals are required by JCAHCO to drill their response. Hospital emergency plans are not, however, required to make explicit provision for the expected influx of psychologically distressed patients, both injured and not injured. Current research demonstrates that the ratio of distressed to injured patients presenting to hospitals in emergencies ranges from 2:1 to 7:1 depending on the nature of the emergency. Psychiatrists are needed to help in planning to meet this need, to enhance hospital risk communication, response

to psychological distress, education of patients and family about psychological consequences of threatening events, and support for the hospital staff responding to the emergency. The author of this report has served for over ten years on an emergency planning committee of a major university hospital in Washington DC that has had to respond to both natural disasters and terrorist events during her tenure. Her presentation will include review of the principles of providing health care in disasters, along with specific materials that may be used in emergencies related to sudden catastrophic events, chemical exposures and epidemic diseases.

#### REFERENCES:

1. Weiss MG, Saraceno B, Saxena S, van Ommeren M. Mental health in the aftermath of disasters: consensus and controversy. *Journal of Nervous & Mental Disease* 2003;191(9):611-5.
2. McDaniel L. Emergencies: how health care facilities are preparing for disasters. *Biomedical Instrumentation & Technology* 2002; 36(1):17-22, 2002.

#### No. 39

### PSYCHOPATHOLOGICAL EFFECTS OF WORK PLACE HARASSMENT

Jose L. Gonzalez de Rivera, M.D. *Universidad Autónoma de Madrid, Psychiatry, Avenida de Filipinas 52, Madrid, 28003, Spain*, Manuel J. Rodriguez-Abuin, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should 1) Be aware of the phenomenon of work place harassment: 2) To recognize and assess the psychopathological syndromes produced by it, and 3) to understand the value of establishing causal assesment and differential diagnoses in psychiatric conditions related to the work experience.

#### SUMMARY:

**Objective:** The purpose of this study is to describe and quantify the psychopathological profile of people complaining of workplace harassment.

Epidemiological studies in Europe confirm that about 10 % of workers suffer of this experience, alternatively named Adult Bullying in England and Mobbing in other european countries. There is no published data regarding the USA. **Method:** We studied 194 subjects (72 males and 122 females) referred by the Spanish Association Against Psychological Abuse in the Work Place. All of them completed a social evaluation of their work situation, and the reality of their complaints was assessed by the Association prior to referral.

They were evaluated with the Spanish version of Derogatis' 90 symptoms Check-List Revised (SCL 90 R). A group of 311 ambulatory psychiatric patients with mixed diagnoses (mainly anxiety and/or depression) and similar demographic characteristics were used as a comparison group. Both groups were also compared with the standardized values of SCL90R scores in the general population of Spain. **Results:** Significant higher scores were found in the harassed workers sample and in the mixed psychiatric population in all the general indicators and symptom dimensions in comparison with the general population.

The harassed workers sample showed significant higher scores than the mixed psychiatric sample, only in the Total of Positive symptoms (PST): 59.42 vs. 52.79 ( $p < 0.000$ ) and in the symptom dimensions of paranoid ideation (1.67 vs 1.30,  $p < 0.000$ ), obsession-compulsion (1.88 vs. 1.64,  $p < 0.01$ ), hostility (1.42 vs. 1.16,  $p < 0.01$ ) and depression (2.06 vs. 1.89  $p < 0.05$ ). **Conclusions:** Work-place harassment is cause of severe psychopathology. The initial assessment with the SCL90R shows higher scores in paranoid ideation-hostility-obsession-depression in comparison with ambulatory psychiatric patients. Further studies are needed to develop criteria of

differential diagnosis between secondary paranoid ideation - as seen in the workplace harassed group- and in paranoid disorders.

#### REFERENCES:

1. Gonzalez de Rivera, JL. *El Maltrato Psicológico*. Madrid, Espasa-Calpe, 2002.
2. Gonzalez de Rivera, JL and Rodriguez-Abuin, MJ: *Cuestionario de Estrategias de Acoso Laboral. LIPT-60*. Madrid, EOS, 2005.

### SCIENTIFIC AND CLINICAL REPORT SESSION 14—EMOTIONALITY, GENDER, AND LIFE SATISFACTION IN ADOLESCENTS

#### No. 40

### THE ROLE OF SUBJECTIVE EMOTIONAL REACTIVITY TO AFFECTIVE PICTURES IN PREDICTING EMOTIONAL-BEHAVIOR DISORDERS OVER A ONE-YEAR PERIOD IN AN UNSELECTED COMMUNITY SAMPLE OF CHILDREN BETWEEN THE AGES OF 7 TO 11

Carla Sharp, Ph.D. *Baylor College of Medicine, Menninger Department of Psychiatry and Behavioral Sciences, 1 Baylor Plaza, BCM 350, Houston, TX, 77030*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to demonstrate knowledge of the aim and value of employing affective picture perception methodologies to further our understanding of the development of emotional-behavior disorders in pre-adolescent children. Participants will be able to recognize the benefits of integrating theories of emotion processing into their understanding and treatment of emotional-behavior disorders in childhood. Participants will furthermore be able to demonstrate an increased understanding of the possible role of neurobiological factors underlying the activation of basic motivational systems controlling approach/appetite or defence/withdrawal processes, and how these factors effect observable behaviour in children.

#### SUMMARY:

**Objective:** The International Affective Picture System (IAPS) is a set of visual stimuli for use in experimental investigations of emotion and attention. In using the affective picture perception methodology, researchers are able to develop and extend theories on the differential physiological and behavioural reactions associated with emotion that may stem from the activation of basic motivational systems controlling approach/appetite or defence/withdrawal. Many studies have demonstrated the relationship between these systems and antisocial behavior, depression and anxiety in adults. Although crucial for increasing our understanding of the emotional processes involved in psychopathology, most of these studies have been correlational in nature. In addition, few studies have investigated this in children, and virtually no studies have investigated the predictive validity of emotional reactivity for the development of emotional-behavior disorders in either adults or children. The main objectives of the study therefore included: (1) to examine the concurrent relationship between subjective emotional reactivity to the IAPS and symptoms of emotional-behavior disorders in an unselected sample of 659 7-11 year old children; (2) to investigate the predictive utility of emotional reactivity for the development of emotional-behaviour disorders over a one-year follow-up period. **Method:** The current study forms part of a larger scale study of the social-cognitive and emotional processing correlates of antisocial behaviour in community children (the Child Behaviour Study). A large unselected sample of 7-11 year old children ( $n=659$ ; 319 boys and 340 girls) were followed



up for one year (two timepoints) after baseline. The IAPS was individually administered to all children at baseline, in addition to an IQ assessment and a range of self-report, parent-report and teacher-report psychopathology measures. At 6 months and 1 year the psychopathology measures were repeated. Results: Underarousal to emotionally negative and intense pictures showed both concurrent and predictive association with measures of antisocial behaviour and predictive association with measures of antisocial behavior. Multivariate analyses showed that underarousal could predict externalizing disorders even when controlling for initial level of behavior disturbance at baseline. Conclusions: These results are novel and important in that they provide the first longitudinal evidence for the role of emotion processing for the development of emotional-behaviour disorders in pre-adolescent children. Given the neurobiological mechanisms assumed to underpin emotion processing as measured by the IAPS, the findings of these studies have implications not only for our understanding of emotional-behavior difficulties in childhood, but also for its treatment.

#### REFERENCES:

1. McManis, M. H., M. M. Bradley, et al. (2001). "Emotional reactions in children: Verbal, physiological, and behavioral responses to affective pictures." *Psychophysiology* 38(2): 222-231.
2. Lang, P. J., M. K. Greenwald, et al. (1993). "Looking at pictures: Affective, facial, visceral, and behavioral reactions." *Psychophysiology* 30(3): 261-273.

#### No. 41

### LIFE SATISFACTION IN YOUNG URBAN ADOLESCENTS

Maribeth Pender, Ph.D. *Massachusetts General Hospital, Psychiatry, 50 Staniford St., 401, Boston, MA, 02114*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the importance of life satisfaction among adolescents and characteristics that relate to life satisfaction, such as self-esteem and social support. In addition, participants will learn more about the emotional well-being of urban adolescents.

#### SUMMARY:

Objective: Research in adolescent development has been expanding to include concepts of well-being as well as pathology in understanding the human condition. The study of well-being has become an objective unto itself, not understood as the absence of disease (Beardsley & Pedersen, 1997). Research in adolescence, in particular, had focused on negative aspects of this period of change and development. While areas such as teen pregnancy, mood disorders, drug and alcohol use, and other negative behaviors and conditions have been widely studied; far fewer studies have been conducted to understand the positive aspects of this stage of life. The aim of this study is to evaluate life satisfaction in urban adolescents and understand how self-esteem and social support relate to life satisfaction in this population. Method: 96 adolescents (58 girls and 38 boys; mean age: 13.07) enrolled in a public, urban school in a large city were administered the self-rated Satisfaction with Life Scale (SLS) (Diener et al., 1985), the Vaux Social Support Record (Vaux, 1988), and the Rosenberg Self-Esteem Inventory (Rosenberg, 1965). Linear multiple regression was used to measure the extent to which self-esteem and social support predicted life satisfaction.

Results: Self-esteem and social support from family, peers, and community significantly predicted life satisfaction (total R-squared=.359). When entered separately in order to evaluate each construct's prediction of life satisfaction, self-esteem (R-squared=.328) was found to have greater predictive value than social support (R-squared=.031). Conclusions:

Both self-esteem and social support from family, peers, and community are predictors of life satisfaction in an ethnically diverse sample of young adolescents. Self-esteem was a more robust predictor of life satisfaction. Importance of self-esteem in understanding life satisfaction should be a focus for clinicians who work with adolescents.

#### REFERENCES:

1. Diner E, Suh EM, Lucas RE, Smith HL: Subjective well-being: Three decades of progress. *Psychological Bulletin* 1999; 125: 276-302.
2. Duckworth AL, Steen TA, Seligman MEP: Positive psychology in clinical practice. *Annual Reviews of Clinical Psychology* 2005; 1: 629-651.

#### No. 42

### EFFECTIVENESS OF GROUP INTERVENTIONS FOR PARENTS OF GENDER-VARIANT CHILDREN

Edgardo J. Menvielle, M.D. *Children's National Medical Center, Psychiatry and Behavioral Sciences, 111 Michigan Ave NW, Washington, DC, 20010-2916*, Darryl B. Hill, Ph.D., Catherine Tuerk, M.A., Tyrone Hanley, B.S., Joseph Henry, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the therapeutic role of group interventions for parents of children with gender variant behaviors. The participant will learn about how intervention that normalize feelings, disseminate information and allow sharing of strategies help parents. Combined quantitative and qualitative data provides rich and nuanced insight into parents' experiences, and what challenges parents experience and what they find most helpful.

#### SUMMARY:

Objective: Gender-variance (GV) in children refers to strong and persistent cross-gender typed behaviors. Although the underlying causes and mutability of GV are not fully understood, the development and dissemination of strategies for decreasing the distress that stems from the pervasive social stigma deserves attention. The parent group intervention focuses on acceptance of the child's gender variance by parents and child and trying to support the child in establishing a healthy self esteem and adequate coping mechanisms. Method:

Face-to-face and on-line professionally lead groups were developed to support parents' efforts to help the child to establish a healthy self-esteem and adequate coping mechanisms. A sample of parents completed the Gender Identity Questionnaire (Johnson L.L., 2004). A user satisfaction survey provided quantitative assessment of user preferences and satisfaction. Telephone depth interviews assessed mother's and fathers' experiences in raising a child with gender-variant behaviors, informal and professional support, and impact of the intervention. Results:

Boys' parents make up 78% of the membership (N=64, mean age 7), with a 3.5:1 boy-girl ratio. GIQ scores were comparable with Johnson's. Among 38 survey respondents, 89% considered the amount of on-line discussion "just right", 74% were "extremely satisfied", and 100% would "recommend the group to parents in similar circumstances". Using a 5 point scale to measure perceived level of importance, respondents rated as most important: "the feeling of not being alone" 74%; "talking on-line with people who understand" 61%; "getting ideas about how to deal with the child" 51%; "changing the way I look at my situation" 26%; and, "getting ideas about how to deal with other adults" 24%. The high level of reported satisfaction is consistent with the low level of dropouts (n=3) since the group's inception. Qualitative interview revealed overall high satisfaction with the experience and provides insight into ex-

pected and unexpected positive and negative aspects of the program.

#### Conclusions:

The scarcity and uneven distribution of specialized clinicians, and the stigma attached to GV often hinder access to clinical services. Group interventions provide a valuable intervention through normalizing feelings, disseminating information and sharing of parenting strategies. A combined quantitative and qualitative evaluation of the program's impact provides rich and nuanced insight into parents' experiences and priorities.

#### REFERENCES:

1. Johnson LL, Bradley SJ, Birkenfeld-Adams AS, Kuksis MA, Maing DM, Mitchell JN, Zucker KJ (2004) A parent-report gender identity questionnaire for children. *Arch Sex Behav*, 3(2):105-16.
2. Menvielle, E.J., & Tuerk, C. (2002). A support group for parents of gender-nonconforming boys. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41, 1010-1013.

## SCIENTIFIC AND CLINICAL REPORT SESSION 15—NEUROBIOLOGY AND PSYCHOIMMUNOLOGY

### No. 43 LYMPHOCYTE AND PLATELET ALTERATION OF THE 5HT TRANSPORTER IN PATIENTS WITH PSYCHOSIS

Donatella Marazziti, M.D. *University of Pisa, Psychiatry, Via Roma 67, Pisa, 56100, Italy*, Mario Catena, M.D., Stefano Baroni, D.Sc., Bernardo Dell'Osso, M.Ed., Gino Giannaccini, D.Sc., Gino Giannaccini, D.Sc.

#### EDUCATIONAL OBJECTIVES:

At the end of this presentation, the participants should have broadened their knowledge on the involvement of the serotonin system in the pathophysiology of psychotic disorders, as well as on the usefulness of peripheral models to investigate CNS parameters

#### SUMMARY:

**Objective:** Given the controversial data concerning the role of the serotonin (5-HT) transporter in psychosis, our study aimed to investigate this structure by means of the measurements of the re-uptake kinetics and of the protein density, in both platelets and lymphocytes of out- and inpatients with different psychotic disorders. **Method:** Diagnoses, according to DSM-IV criteria, were bipolar 1 disorders with mood incongruent psychotic features (14), mixed states (7) and schizophrenia (4). Twenty-five matched healthy subjects were also selected as the control group. Platelet and lymphocyte membranes were prepared according to standardized protocols, as were the [3H]5HT re-uptake and [3H]paroxetine ([3H]Par) binding. **Results:** The results of this study showed a decreased density of the [3H]Par binding sites coupled with a reduced velocity of [3H]5-HT re-uptake in both platelets and lymphocytes of psychotic patients, as compared with healthy control subjects. **Conclusions:** These findings would suggest a general abnormality of the 5-HT system in psychotic patients, probably not confined only to the brain.

#### REFERENCES:

1. Marazziti D, Rossi A, Giannaccini G, Baroni S, Lucacchini A, Cassano GB. Presence and characterization of the serotonin transporter in human resting lymphocytes. *Neuropsychopharmacology* 1998;19: 154-9.
2. Kornhuber J, Wiltfang J, Bleich S. The etiopathogenesis of schizophrenias. *Pharmacopsychiatry*. 2004; 37 (Suppl 2): S103-112.

### No. 44

## POTENTIAL ROLE OF INTERLEUKIN-6 AND HPA AXIS IN BREAST CANCER PATIENTS WITH MDD

Haldun Soygur, M.D. *Ankara Oncology Training and Research Hospital, Psychiatry, Tunas Cad., 72 / 6, Ankara, 06680, Turkey*, Ozden Palaoglug, M.D., Eyup Akarsu, M.D., Elvan Ozalp, M.D., Eylem Cankurtaran, M.D., Levent Turhan, M.D., Ismail Hakki Ayhan, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize that there is a potential relationship between immune and endocrine parameters and depression with breast cancer patients.

#### SUMMARY:

**Objective:** Cancer is associated with a rate of major depression that is higher than general population, because cancer patients show obvious psychological and physical distress. There are many evidences for the role of proinflammatory cytokines in the etiology of depression. A number of studies were reported about the neurochemical, neuroendocrine, neuroimmun and neuroanatomical alterations in major depression. However, only very few of these alterations have been systematically investigated in cancer patients with major depression. This study investigated whether breast cancer patients with and without major depressive disorder, exhibit plasma interleukin-6 abnormalities, dexamethasone suppression test results and treatment response with escitalopram similar to those reported in medical healthy, patients with major depressive disorder.

**Method:** Four groups, 30 women in each, were compared to each other in this study:

- 1- Healthy controls
- 2- Patients with major depressive disorders (without cancer or another organic disease)
- 3- Breast cancer patients without major depressive disorder
- 4- Breast cancer patients with major depressive disorder

Psychiatric evaluation were made by Structured Clinical Interview for DSM-IV (SCID). Severity of depression was measured with Hamilton Depression Rating Scale. Plasma levels of interleukin-6 were measured. Dexamethasone suppression test was made and then plasma levels of post-DST cortisol were measured. Measures were repeated before and after escitalopram treatment. **Results:** Breast cancer patients with major depressive disorder had markedly higher plasma levels of interleukin-6 than breast cancer patients without major depressive disorder, patients only with major depressive disorder and healthy subjects. All of patients with breast cancer and major depressive disorder together had abnormal dexamethasone suppression test results. There was not any significant correlation between severity of depression and plasma levels of interleukin-6 and plasma levels of postDST cortisol. Symptoms of depression, elevated plasma levels of IL-6 and abnormal dexamethasone suppression test results were significantly decreased after treatment with escitalopram. **Conclusions:** A significant hyperactivation of hypothalamo-pituitary-adrenal axis was found in breast cancer patients with major depressive disorder and it was thought that interleukin-6 could be responsible for this activation. This immun and endocrine activation could be reverted by antidepressant treatment. But it is concluded that the matter if this activation is adaptive or maladaptive for the breast cancer should be searched very carefully and the use of antidepressant treatment should be evaluated considering this point of view.

#### REFERENCES:

1. Musselman DL, Miller AH, Nemeroff CB, Higher than plasma interleukin-6 concentrations in cancer patients with with depression: preliminary findings. *Am J Psychiatry* 2001; 158:1252-1257.
2. Maes M, The immunoregulatory effects of antidepressants. *Human Psychopharmacol Clin Exp* 2001; 16:95-103.

No. 45

**NMDA RECEPTORS AND BPD: A CRITICAL MEDIATOR**Bernadette M. Grosjean, M.D. *Harbor UCLA, Psychiatry, 1000 West Carson Street, Box 497, Torrance, CA, 90509***EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation participants should be able to identify neurocognitive dysfunction found in patients with borderline personality disorders (BPD); the role of glutamatergic systems and NMDA receptor in neurodevelopment; and the potential interplay between these systems and the course of BPD pathology from etiology and symptoms to treatment innovation.

**SUMMARY:**

**Objective:** Studies of the neurobehavioral components of borderline personality disorder (BPD) have shown that symptoms and behaviors of BPD are, in part, associated with disruptions in basic neurocognitive processes, in particular in the executive neurocognition and memory systems. Recently, a growing body of data indicates that the glutamatergic system, known to play a major role in neuronal plasticity, cognition and memory, may underlie the pathophysiology of multiple psychiatric disorders. This report presents and articulates recent neurobiologic data in glutamatergic systems and N-methyl-D-Aspartate (NMDA) receptors dysfunction with the etiopathology and symptomatology of BPD. **Method:** 1- Systematic review of the literature regarding BPD and cognitive deficits; 2- review of current data of glutamatergic and NMDAR systems, their impact on neurodevelopment and in particular on cognitive functions and their interactions with the environment. **Results:** Multiple cognitive dysfunctions in patients with BPD may potentially result from dysregulation of the glutamatergic /NMDA receptors systems. This impairment may be the result of the conjunction of biological predispositions and environmental impact mediated by the NMDA system. **Conclusions:** The role of glutamate-NMDA, among other neurotransmitter systems, as a critical modulator for neuroplasticity is well recognized. The development of these systems is influenced by environmental factors, in particular by stress, trauma, or neglect. Dysfunctions at the level of the NMDA receptors impact cognition, emotion, affect, motivation, appraisal and evaluation of environmental stimuli. This is particularly evident in the psychopathology of BPD.

**REFERENCES:**

1. Fertuck, E.A., M.F. Lenzenweger, and J.F. Clarkin, The association between attentional and executive controls in the expression of borderline personality disorder features: a preliminary study. *Psychopathology*, 2005. 38(2): p. 75-81.
2. Javitt, D.C., Glutamate as a therapeutic target in psychiatric disorders. *Mol Psychiatry*, 2004. 9(11): p. 984-97, 979.

**SCIENTIFIC AND CLINICAL REPORT SESSION 16—MEDICATION RESPONSE IN BIPOLAR DISORDER**

No. 46

**GALANTAMINE-CR FOR COGNITIVE DYSFUNCTION IN BIPOLAR DISORDER: EFFICACY AND BIOLOGICAL CORRELATES**Dan V. Iosifescu, M.D. *Massachusetts General Hospital, Psychiatry, 50 Staniford Street, suite 401, Boston, MA, 02114*, Constance Moore, Ph.D., Thilo Deckersbach, Ph.D., Perry F. Renshaw, M.D., Maurizio Fava, M.D., Andrew A. Nierenberg, M.D., Gary S. Sachs, M.D.**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to understand the importance of cognitive dysfunction (CD) in bipolar disorder; the role of galantamine and other cholinesterase inhibitors in the treatment of CD, and the associations with measures of neuronal viability and lipid membrane metabolism in the hippocampus.

**SUMMARY:**

**Objective:** The purpose of this study was to assess the efficacy of galantamine-CR for cognitive dysfunction (CD) in subjects with bipolar disorder and to assess the relationship between CD and hippocampus N-acetyl aspartate (NAA, a measure of neuronal viability) and choline. **Method:** Nineteen subjects with bipolar disorder in remission, who reported subjective cognitive deficits, were treated with open-label galantamine-CR 8-24 mg/day for four months. Ten normal controls matched for age and gender were also assessed. Mood and subjective cognitive questionnaires were administered monthly. At the beginning and the end of the trial we administered all subjects neuropsychological tests of attention (Conners Continuous Performance Test), short-term memory (Wechsler Memory Scale III Digits Forward and Backwards; Benton Visual Retention Test), episodic memory (California Verbal Learning Test; Rey-Osterrieth Complex Figure Test), and executive functioning (Wisconsin Card Sorting Test; Stroop Test, Controlled Oral Word Association Test). Bipolar subjects underwent proton magnetic resonance spectroscopy (1H-MRS) measurements before and after treatment, normal controls completed baseline 1H-MRS. We acquired 1H-MRS data at 4T from two 1.5 x 1.5 x 1.5 cm voxels centered on the left and right hippocampus to measure hippocampal NAA and choline levels. **Results:** Compared to normal controls, bipolar subjects had higher baseline subjective cognitive deficits ( $p < 0.01$ ) and lower scores on some objective tests of attention (Conner's CPT,  $p < 0.05$ ) and verbal episodic memory (CVLT,  $p < 0.02$ ). There were no significant baseline differences between bipolar subjects and normal controls in measures of short-term memory, executive function, or in 1H-MRS metabolite levels. After treatment, bipolar subjects experienced significant improvement of subjective cognitive scores ( $p < 0.01$ ) and on some objective tests of attention (Conner's CPT,  $p < 0.04$ ) and verbal episodic memory (CVLT,  $p < 0.03$ ), but not on measures of short-term memory or executive function. After treatment NAA and choline levels increased in both left and right hippocampus, but differences were not statistically significant. However, the increases in hippocampal NAA and choline during treatment were associated with subjective cognitive improvements ( $p < 0.02$ ). **Conclusions:** Galantamine-CR improved cognitive deficits in subjects with bipolar disorder; those improvements were associated with increases in neuronal viability and lipid membrane metabolism in the hippocampus.

**REFERENCES:**

1. Thompson JM, Gallagher P, Hughes JH, Watson S, Gray JM, Ferrier IN, Young AH. Neurocognitive impairment in euthymic patients with bipolar affective disorder. *Br J Psychiatry*. 2005;186:32-40.
2. Martinez-Aran A, Vieta E, Colom F, Torrent C, Reinares M, Goikolea JM, Benabarre A, Comes M, Sanchez-Moreno J. Do cognitive complaints in euthymic bipolar patients reflect objective cognitive impairment? *Psychother Psychosom*. 2005;74(5):295-302.

No. 47

**RATE OF IMPROVEMENT WITH QUETIAPINE ACROSS DIFFERENT SYMPTOMS AND SYMPTOM CLUSTERS IN BIPOLAR DISORDER**Terence A. Ketter, M.D. *Stanford University, School of Medicine, Psychiatry and Behavioral Sciences, 401 Quarry Road, Room 2124*,

Stanford, CA, 94305-5723, Joseph R. Calabrese, M.D., Robert M.A. Hirschfeld, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should understand the differential effects of quetiapine on the different symptoms and symptom clusters of bipolar disorder, and that considering these outcomes could assist in developing optimal treatments for their patients.

#### SUMMARY:

**Objective:** To assess the extent to which rate of improvement varies for different symptoms and symptom clusters in patients with bipolar disorder receiving quetiapine for acute manic and major depressive episodes. **Method:** This post-hoc analysis examined the specific time course of improvements for different symptoms and symptom clusters with quetiapine versus placebo in bipolar disorder patients with acute manic (intent to treat  $N = 773$ ), and major depressive (intent to treat  $N = 511$ ) episodes. **Results:** In both manic and depressed patients, quetiapine-induced global improvement as reflected by Clinical Global Impression-Severity scores, preceded improvement on the Positive and Negative Syndrome Scale (PANSS). In manic patients, improvement in manic symptoms as reflected by Young Mania Rating Scale scores and improvement on the PANSS were observed within the first week of treatment (day 4 and day 7 in two monotherapy studies; day 7 in one combination therapy study). In patients with bipolar depression, improvements in both depression, as reflected by Montgomery-Asberg Depression Rating Scale and Hamilton Rating Scale for Depression scores, and anxiety as reflected by Hamilton Rating Scale for Anxiety scores, occurred as early as the first assessment (week 1). **Conclusions:** Rate of improvement with quetiapine varied for different symptoms and symptom clusters in bipolar disorder patients. This could be related to the multiple mechanisms of action of this agent.

Funding for this research was provided by AstraZeneca.

#### REFERENCES:

1. Calabrese JR, Keck PE Jr, Macfadden W, et al, for the BOLDER Study Group: A randomized, double-blind, placebo-controlled trial of quetiapine in the treatment of bipolar I or II depression. *Am J Psychiatry* 2005; 162:1351-1360.
2. Vieta E, Mullen J, Brecher M, et al: Quetiapine monotherapy for mania associated with bipolar disorder: combined analysis of two international, double-blind, randomised, placebo-controlled studies. *Curr Med Res Opin* 2005; 21:923-934.

No. 48

#### EFFICACY OF THE ANTIPSYCHOTICS IN ANXIETY SYMPTOMS WITH OR WITHOUT BIPOLAR DISORDER

Keming Gao, M.D. *Case Western Reserve University, 11400 Euclid Ave., Suite 200, Cleveland, OH, 44106*, Joseph R. Calabrese, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand the efficacy of typical and atypical antipsychotics in the treatment of anxiety symptoms/disorders with or without bipolar disorder.

#### SUMMARY:

**Objective:** The comorbid anxiety disorder (s) with bipolar disorder is a role, not an exception. This comorbidity has a negative impact on the treatment outcome and prognosis in patients with bipolar disorder. However, the efficacy data in the treatment of the comorbid anxiety are limited. Using antidepressants in this population may trigger mania. Prescribing benzodiazepines for them may be riskier given the high rates of comorbid substance use disorder in this population.

Antipsychotics may be a viable alternative. This report was prepared to review the efficacy of typical and atypical antipsychotics in the treatment of anxiety symptoms/disorders in patients with or without bipolar disorder and to provide a foundation for future studies and optimal medical management for this underserved population. **Method:**

English-language literature cited in Medline was searched with terms anxiety disorder, generalized anxiety disorder (GAD), panic disorder (PD), obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), social phobia (SP), Hamilton anxiety rating scale (HAMA), antipsychotics, typical antipsychotics, atypical antipsychotics, generic name of antipsychotics, and clinical trial with or without bipolar disorder or manic-depressive illness. All randomized, double-blind, placebo-controlled studies and open-label studies with a minimum of 20 subjects with DSM-IV anxiety disorders or HAMA were included. **Results:**

Two clinical trials in bipolar depression with anxiety symptoms, 5 in primary GAD, 13 in refractory OCD, 5 in PTSD, 5 in neurosis, and 1 in SP were identified. Both olanzapine and quetiapine significantly reduced anxiety symptoms in patients with bipolar depression compared to placebo. Risperidone, olanzapine, and quetiapine augmentation to antidepressants showed superiority to placebo in reducing symptoms of refractory OCD and PTSD. Low doses of typical antipsychotic agents were superior to placebo and as effective as benzodiazepines in the treatment of a variety of symptoms of GAD, OCD, and other anxiety disorders. **Conclusions:** Low doses of typical antipsychotics are safe, well-tolerated, superior to placebo, and as effective as benzodiazepines in the treatment of GAD and they are also useful as an adjunctive therapy to SSRIs for refractory or chronic anxiety disorders, such as OCD. Atypical agents, risperidone, olanzapine and quetiapine are useful as adjunctive agents to SSRIs in the treatment of refractory OCD or chronic PTSD. Their roles in GAD and other anxiety disorders in patients with or without bipolar illness need to be further investigated.

#### REFERENCES:

1. Calabrese JR, Macfadden W, McCoy R et al. Double-blind, placebo-controlled study of quetiapine in bipolar depression. *Am J Psychiatry* 2005; 162:1351-1360.
2. Mendels JM, Krajewski TF, Huffer V, et al. Effective short-term treatment of generalized anxiety disorder with trifluoperazine. *J Clin Psychiatry* 1986; 47:170-174.

#### SCIENTIFIC AND CLINICAL REPORT SESSION 17—PRESCRIPTION AND COMPLIANCE IN BIPOLAR DISORDER

No. 49

#### PRESCRIPTION PATTERNS FOR LATIN AMERICANS TREATED FOR MDD IN NATURALISTIC CLINICAL PRACTICE SETTINGS

Alan J. Brnabic *Australia*, Margaret McBride, Manuel O. Sanchez, Florence Kerr-Correa, M.D., Antonio Celis-Perdomo, Hector J. Duenas, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to describe the prescription patterns of depressed patients in Latin America, as well as the correlation of improvement of scores of HAMD-17, quality of life and improvement in Painful Physical Symptoms (PPS) associated to MDD measured with VAS per therapeutic class. PPS are prevalent in LA and persist despite the current antidepressant treatment which may represent one important reason for the treatment outcomes of depressed patients in LA.

**SUMMARY:**

**Objective:** To summarise prescription patterns for Latin Americans with major depressive disorder (MDD) treated over 12 months in naturalistic, clinical practice settings. **Method:** Methods and baseline results of this multi-centre, observational study (H6U-BC-LRAG) have been previously reported. **Results:** Of enrolled patients (n=989), 77.6% completed the study, 88.5% responded to treatment (>50% reduction from baseline HAMD<sub>17</sub>), and 67.9% achieved remission (HAMD<sub>17</sub> ≤ 7 for ≥ 4 weeks). The majority (72.6%, 95% CI: 69.8, 75.4) of patients presented with painful physical symptoms at baseline (PPS+), and were compared to the remaining patients (PPS-).

The most frequently prescribed antidepressant class at baseline was SSRI (Selective Serotonin Reuptake Inhibitor), but 89% of patients prescribed SNRI (Serotonin and Norepinephrine Reuptake Inhibitor) monotherapy were PPS+. Regardless of the treatment received, PPS+ patients experienced significantly greater improvements in HAMD<sub>17</sub> (p=.008), quality of life (p=.027) and VAS scores (p<.0001), when compared to PPS- patients. However, following 12 months of treatment, PPS+ patients remained significantly more depressed (p=.007), and reported significantly (p<.0001) greater residual physical pain than PPS- patients. **Conclusions:** Painful physical symptoms are prevalent in Latin American patients with MDD, and persist despite current antidepressant treatment patterns. The enduring presence of painful physical symptoms may adversely affect treatment outcomes for these patients and may account for the high rate of relapse of depression in LA.2

**REFERENCES:**

- Muñoz R, McBride M, Brnabic A, López C, Hetem L, Secin R, Dueñas H. Major Depressive Disorder in Latin America: the relationship between depression severity, painful somatic symptoms and quality of life. *J Affective Disorders* 2005; 86: 93-98.
- Bair M, Robinson R, Katon W, Kroenke, K. Depression and pain comorbidity ' A literature review. *Arch Intern Med.* 2003; 163: 2433-2445.

**No. 50****NONADHERENCE IN BIPOLAR DISORDER: A QUALITATIVE STUDY EXPLORING PERCEPTUAL AND PRACTICAL BARRIERS TO TAKING MEDICATION**

Jane Clatworthy *University of Brighton, Behavioural Medicine Research Unit, Rm 260, Mayfield House, Falmer, Brighton, BN1 9PH, United Kingdom*, Richard Bowskill, Tim Rank, Rhian Parham, Rob Horne

**EDUCATIONAL OBJECTIVES:**

- At the conclusion of this presentation, the participant should:
- have greater insight into patients' perceptions of bipolar disorder and its treatment.
  - consider the various ways patients use their prescribed medication.
  - have a better understanding of the types of barriers to adherence faced by patients with bipolar disorder.
  - be aware of strategies for eliciting and addressing patients' barriers to adherence, in order to optimise management of the condition.

**SUMMARY:**

**Objective:** To use a qualitative methodology to conduct a detailed exploration of patients' perceptual and practical barriers to taking medication prescribed for bipolar disorder. **Method:** Sixteen adults prescribed prophylactic treatment for bipolar disorder were recruited via their psychiatrists. They completed a semi-structured interview with two independent researchers about bipolar disorder and its treatment. Interviews were recorded and transcribed verbatim. Two

researchers identified patients' beliefs and practical difficulties associated with nonadherence to medication from the transcripts. **Results:** Thirteen participants (81%) reported nonadherence to medication either currently or in the past. Types of nonadherence included taking less medication than prescribed, taking more than prescribed and experimenting with different combinations and doses of medications. Perceptions of bipolar disorder (e.g. not accepting the diagnosis, believing it to be an acute condition, believing it to be an uncontrollable condition) and treatment (e.g. high concerns about treatment, low perceived personal need for treatment) were associated with intentional nonadherence. Practical difficulties (e.g. forgetting, confusion) were associated with unintentional nonadherence. **Conclusions:** This study has identified some of the key beliefs and practical difficulties that should be elicited and addressed in interventions to facilitate adherence to medication in bipolar disorder.

This research was supported by an unrestricted educational grant from AstraZeneca.

**REFERENCES:**

- Horne R: Compliance, adherence and concordance. In *Pharmacy Practice*, edited by Taylor K, Harding G, London, Taylor & Francis, 2001, pp165-184.
- Lingam R, Scott J: Treatment non-adherence in affective disorders. *Acta Psychiat Scand* 2002; 105:164-172.

**No. 51****PATIENT DISSATISFACTION WITH INFORMATION RECEIVED ABOUT MEDICINES PRESCRIBED FOR BIPOLAR DISORDER**

Richard Bowskill *University of Brighton, Postgraduate Medical School, Rm 342, Mayfield House, Falmer, Brighton, BN1 9PH, United Kingdom*, Jane Clatworthy, Rhian Parham, Tim Rank, Rob Horne

**EDUCATIONAL OBJECTIVES:**

- At the conclusion of this presentation, the participant will:
- be familiar with a validated tool for assessing patient satisfaction with information received about medicine.
  - recognise the high levels of dissatisfaction with information received about medicines prescribed for bipolar disorder and the implications for adherence.
  - consider possible reasons for the high levels of dissatisfaction.

**SUMMARY:**

**Objective:** Dissatisfaction with information received about medicines has been associated with reduced treatment uptake and low adherence in chronic conditions. The aim of this study was to explore patient satisfaction with information received about medicines prescribed for bipolar disorder and its relationship with reported adherence. **Method:** 223 members of the Manic Depression Fellowship completed a postal questionnaire booklet including validated measures of satisfaction with information received about medicines (SIMS) and reported adherence (MARS). **Results:** Over 50% of participants reported not having received enough information about how long they would need to be on the medicines or how the medicines work. Over 60% of participants were dissatisfied with the information they had received about possible side effects. Dissatisfaction with information received about medicines was associated with low reported adherence (t(192)=1.7, p<.05). **Conclusions:** There are high rates of patient dissatisfaction with information provided about medicines prescribed for bipolar disorder. This has implications for management of bipolar disorder, as low satisfaction is associated with low adherence.

This research was supported by an unrestricted educational grant from AstraZeneca.

## REFERENCES:

1. Horne R, Hankins M, Jenkins R: The Satisfaction with Information about Medicines Scale (SIMS): a new measurement tool for audit and research. *Qual Health Care* 2001; 10:135-140.
2. Gellaitry G, Cooper V, Dowdell L, Davies C, Fisher M, Leake-Date H, Horne R: Patients' perception of information about HAART: Impact on treatment decisions. *AIDS CARE* 2005; 17:367-376.

## SCIENTIFIC AND CLINICAL REPORT SESSION 18—SPECIAL POPULATIONS AND MOOD DISORDERS

No. 52

### JUVENILE BIPOLAR DISORDER: TOWARD A VALIDATION OF THE EPISODIC-CHRONIC DISTINCTION

Giulio Perugi, M.D. *University of Pisa, Via Roma 67, Pisa, 56100, Italy*, Gabriele Masi, M.D., Cristina Toni, M.D., Stefania Millepiedi, M.D., Maria Mucci, M.D., Hagop S. Akiskal, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize different subtypes of juvenile bipolar disorder

## SUMMARY:

Objective: Recent research has addressed the issue of subtyping juvenile bipolar disorder (JBD). Accordingly, we aimed to find out, in a naturalistic sample of bipolar children and adolescents with mania and mixed mania, whether the most useful subtyping should be based on clinical features (elated vs. irritable) or course (episodic vs. chronic). Method: We studied 136 patients, 81 males (59.6%) and 55 females (40.4%), mean age  $13.5 \pm 2.9$  years, meeting the DSM-IV diagnosis of Bipolar Disorder, assessed by a structured clinical interview (K-SADS-PL). Results: Regarding course, 77 patients (56.6%) had an episodic, and 59 (43.4%) had a chronic course. Patients with chronic course were significantly younger, had an earlier onset of JBD, and presented a more frequent comorbidity with disruptive behavior disorders. According to the prevalent mood disturbance, 75 patients (55.1%) showed an elated and 61 (44.9%), an irritable mood. Elated mood was more frequent in patients with episodic course, whereas irritable mood was more frequent in the patients with chronic course. Conclusions: These findings suggest that chronic versus episodic course may be a putative differential feature. Further validation of such a distinction would require prospective studies, temperament evaluation, gender and neurobiologic approaches, and differential psychopharmacologic assignment and response.

## REFERENCES:

1. Masi G, Perugi G, Toni C, Millepiedi S, Mucci M, Bertini N, Akiskal HS: Predictors of treatment nonresponse in bipolar children and adolescents with manic or mixed episodes. *J Child Adolesc Psychopharmacol.* 2004 Fall;14(3):395-404.
2. Masi G, Toni C, Perugi G, Traverso MC, Millepiedi S, Akiskal HS: Externalizing disorders in consecutively referred children and adolescents with bipolar disorder. *Compr Psychiatry.* 2003 May-Jun;44(3):184-9.

No. 53

### TREATMENT OF SAD WITH A CARBOHYDRATE- RICH NUTRIENT MIXTURE

David Mischoulon, M.D. *Massachusetts Institute of Technology, Clinical Research Center, Building E17, 40 Ames Street, Room 445,*

*Cambridge, MA, 02142,* Judith Wurtman, Ph.D., Mark Vangel, Ph.D., Richard Wurtman, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand the management of Seasonal Affective Disorder using a natural carbohydrate based beverage.

## SUMMARY:

Objective: Seasonal affective disorder (SAD) presents with depressive symptoms, usually during the fall and winter. Individuals with SAD often exhibit carbohydrate cravings, fatigue, and an increased need for sleep. We sought to investigate a natural treatment for SAD, a carbohydrate drink containing 40g of a mixture of starch, maltodextrin, dextrose, and dextrin. This mixture is believed to contribute to serotonin synthesis in the brain, thus exerting an antidepressant effect and controlling carbohydrate cravings. Method:

Eighteen subjects (mean age= 43, SD=15; 50% women) diagnosed with SAD by the SCID-mood module were enrolled in a double blind placebo-controlled cross-over trial during early winter. After a one-week run-in period, each arm lasted 12 days, with a 2-day washout period between arms. The carbohydrate rich beverage (CHO) was consumed twice daily, before lunch and dinner. Its effect on mood and appetite symptoms was compared against the control intervention, a carbohydrate and protein mixed beverage (CHO/PRO) consisting of 15g of the milk protein casein and 25g of the carbohydrate mixture used in the active beverage. The addition of casein prevents tryptophan uptake into the brain and dampens synthesis of serotonin. On testing days 6 and 12, subjects were provided with low-carbohydrate snacks and test-day bagged lunch, and were instructed not to eat other foods during testing. Evaluations on mood and appetite were conducted, then a beverage was consumed, and 2 more evaluations were performed at 1 hour and 2 hours post beverage consumption. The Hamilton Depression Rating Scale (HAM-D) was used for assessment of depressive symptoms. Measurements were obtained at the time of screening; after the first and second week on placebo or test drink; and after the first and second week of the crossover. Results:

Sixteen subjects completed the study. Individuals who received CHO as opposed to CHO/PRO had a statistically significant ( $p < 0.05$ ) improvement in the following 3 symptom categories: work activity (ability to work effectively), middle insomnia, and depersonalization/derealization. Overall, CHO improved 19 of 27 of the individual components of the HAM-D compared to CHO/PRO, including all the components of the HAM-D most associated with SAD and winter blues (work activity, oversleeping, weight gain, and fatigue). Conclusions:

High-carbohydrate, low-protein beverages may have utility in treating not only SAD, but also individual symptoms of mood disorders. Replication of this pilot study and further investigation of this treatment for SAD are warranted.

## REFERENCES:

1. Roeklein KA, Rohan KJ. Seasonal Affective Disorder: An Overview and Update. *Psychiatry* 2005 (Jan): 20-26.
2. Sayegh, R, Schiff, I, Wurtman J, Spiers, P, McDermott J, Wurtman R. The Effect of a Carbohydrate-Rich Beverage on Mood, Appetite, and Cognitive Function in Women with Premenstrual Syndrome. *Obstet and Gynec.* 1995;86:520-528.

No. 54

### IMPAIRED MOOD AND SOCIAL FUNCTIONING AMONG ADULT CHILDREN OF PARENTS WITH DEPRESSION

Christine Timko, Ph.D. *VA Palo Alto Health Care System, Center for Health Care Evaluation, 795 Willow Road, 152 MPD, Menlo*

Park, CA, 94025, Ruth C. Cronkite, Ph.D., Ralph W. Swindle, Ph.D., Rebecca L. Robinson, M.S., Rudolf H. Moos, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to summarize findings of previous studies of the impact of parental depression on adult children. That is, generally, more severe parental depression during the offspring's childhood is associated with the children having poor educational attainment, a higher likelihood of major depressive disorder, and an earlier onset and more severe course of depressive disorders in adulthood (Ensminger et al., 2003; Lieb et al., 2002). Issues of heritability and environment will be discussed. In addition, the participant should be able to summarize findings of the present study. These include findings of more psychosocial dysfunction among children of depressed parents than among children of control parents at baseline (Billings & Moos, 1983), and that children of depressed parents are at risk for poor psychosocial functioning in the short- and long-term even when parents' depression has remitted (Billings & Moos, 1986; Timko et al., 2002). Finally, the participant will understand the implications of findings for improving the well-being of adult children of depressed parents and their families.

#### SUMMARY:

**Objective:** We compared adult children of depressed (ACODs) and control (ACOCs) parents on psychosocial functioning, and examined associations between the severity and course of parental depression and ACODs' functioning. **Method:** We followed 143 ACODs and 199 ACOCs' parents prospectively for 23 years (80% response rate). At baseline and/or follow-ups, parents and children completed the Health and Daily Living Form (Moos et al., 1990) and the Family Environment Scale (Moos & Moos, 1994). Depression Symptom Severity was based on DSM-IV criteria (American Psychological Association, 1994). **Results:** At the 23-year follow-up, compared to ACOCs (51% female; mean age = 34), ACODs (58% female; mean age = 35) had more severe depression symptoms and were more likely to have taken anti-depressant medication. ACODs also had fewer friends and relied more on avoidance coping. More severe parental depression at baseline and 10 years, and a more severe course of parental depression, was associated with more family conflict and poorer functioning among ACODs at 23 years. **Conclusions:** Parental depression, especially more severe depression, is associated with children's depression and poorer psychosocial functioning in adulthood. Efforts to prevent and treat parental depression and children's dysfunction should improve the well-being of adult children and their families.

#### REFERENCES:

1. Billings AG, Moos RH: Children of parents with unipolar depression: a controlled 1-year follow-up. *J Abnorm Child Psychol* 1986; 14:149-166.
2. Timko C, Cronkite RC, Berg EA, Moos RH: Children of parents with unipolar depression: a comparison of stably remitted, partially remitted, and nonremitted parents and nondepressed controls. *Child Psychiatry Hum Dev* 2002; 32:165-185.

## SCIENTIFIC AND CLINICAL REPORT SESSION 19—BRAIN IMAGING

### No. 55 fMRI OF THE BRAIN REWARD SYSTEM: MANIPULATION OF RISK AND REWARD VALUE

Juliana Yacubian, Ph.D. *Hamburg University, Systems Neuroscience, Martinistras. 52, Hamburg, 20246, Germany*, Katrin Schroeder, Tob-

ias Sommer, Jan Glaescher, Dieter F. Braus, Ph.D., Christian Buechel, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to demonstrate that since striatal dopamine responses are implicated in the neurophysiologic reinforcement of addiction and gambling behaviors our results could be useful to understanding the neural mechanism that underlies the risk taking behavior and why this behavior pattern is attractive for many people.

#### SUMMARY:

**Objective:** In line with animal experiment models that show the participation of mesolimbic dopamine neurons in reward prediction, functional MRI experiments in human strongly suggest that the ventral striatum processes information about reward and errors prediction, motivation and learning.

Two influential reports of animal experiments recently demonstrated that mesolimbic dopamine neurons respond to reward uncertainty and display adaptive coding of reward value. The effect of uncertainty probabilities in combination with reward value has not been fully explored in previous imaging experiments in humans. In this functional neuroimaging study, we present a gambling task paradigm, in which the risk and value of reward are precisely controlled. Using this paradigm, we assess neuronal responses within human reward system with the objective of clarify the striatal activation in distinct aspects of reward processing.

**Method:** Sixty-four healthy volunteers were scanned using functional magnetic resonance imaging during the performance of a gambling task with financial rewards. It was assessed the impact of two possibilities of risk (low/high) and two possibilities of reward value (low/high) on neuronal activation.

**Results:** We showed that the striatum activation in the anticipation phase for low-risk trials is greater than for high-risk trials ( $p > 0.001$ ); however this activation in the outcome phase decreased for the low-risk and increased for the high-risk trials within rewarding conditions ( $p < 0.001$ ). Additionally, we found that different levels of risk combined with amount of reward activated different areas in the striatum in the anticipation phase, suggesting that specialized regions in the striatum respond distinctly to different components of the reward information.

**Conclusions:** These results suggested that changes in the combination of risk and amount values of the delivered reward are intrinsically linked and varied distinctly in the modulation of the activity in striatum. Since alterations in striatal dopamine responses are implicated in the neurophysiologic reinforcement of addiction and gambling behaviors our results could be useful to understanding the neural mechanism that underlies the risk-taking behavior and why this behavior pattern is attractive for many people.

**Acknowledgment:** Brazilian Research Council (CNPq) - postdoctoral fellowship

#### REFERENCES:

1. Fiorillo CD, Tobler PN, Schultz W. (2003) Discrete coding of reward probability and uncertainty by dopamine neurons. *Science* 299:1898-902.
2. Knutson B, Taylor J, Kaufman M, Peterson R, Glover G. (2005) Distributed neural representation of expected value. *J Neurosci.* 25:4806-12.

### No. 56 BRAIN STRUCTURE AND OUTCOME IN SCHIZOPHRENIA: THE NORTHERN FINLAND 1966 BIRTH COHORT

Erika Lauronen, M.D. *University of Oulu, Department of Psychiatry, P.O.BOX 5000, FIN-90014 University of Oulu, Oulu, FIN-90014,*

Finland, Jouko Miettunen, Ph.D., Juha M. Veijola, Dr. Med. Sc., Matti K. Isohanni, Dr. Med. Sc.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to know the associations between brain structure and the course of illness in schizophrenia and differences in the brain structure between individuals with good and poor outcome.

#### SUMMARY:

**Objective:** To define differences in volumes of gray and white matter and intracranial cerebrospinal fluid (CSF) between schizophrenia subjects with good and poor clinical and social outcome. **Method:** Subjects with psychosis from the population based Northern Finland 1966 Birth Cohort were invited to MRI scan of the brain and face to face interviews, conducted in 1999-2001. Volumes of gray and white matter and cerebrospinal fluid (CSF) were measured. Interviews and case registers were used to rate measures of outcome including social and occupational functioning (SOFAS), positive and negative symptoms (PANSS), occupational status, and psychiatric hospitalizations. Data was available for 52 (32 men, 20 women) subjects with DSM-III-R schizophrenia. **Results:** Individuals on disability pension had gray matter 43.7% of whole brain volume (white, gray and CSF) when compared to others (45.3%). They also had more CSF (19.8% vs. 18.1%). Proportion of CSF of whole brain volume was 19.9% within subjects having over median score of positive symptoms whereas proportion of CSF was 18.1% within other cases. When adjusted with familial risk for psychosis, obstetric complications and sex, these differences remained statistically significant. **Conclusions:** At least some brain abnormalities, and especially excessive volume of CSF, seems to associate with poor outcome in schizophrenia.

#### REFERENCES:

1. Journal Article - Staal WG, Pol HEH, Kahn RS. Outcome of schizophrenia in relation to brain abnormalities. *Schizophrenia Bulletin* 1999;25(2):337-348.
2. Journal Article - van Haren NEM, Cahn W, Pol HEH et al. Brain volumes as predictor of outcome in recent-onset schizophrenia: a multi-center MRI study. *Schizophrenia Research* 2003;64:41-52.

No. 57

#### PROGRESSIVE GLUTAMATERGIC AND GRAY MATTER CHANGES IN FIRST EPISODE PATIENTS WITH SCHIZOPHRENIA AND HIGH FIELD PROTON MRS

Peter C. Williamson, M.D. *University of Western Ontario, Psychiatry, 339 Windermere Road, London, ON, N6A 5A5, Canada*, Jean Théberge, Ph.D., Kathryn E. Williamson, B.S., Naoko Aoyama, M.S., Rahul Manchanda, M.D., Maria Densmore, B.S., Dick J. Drost, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize that: 1- recent reports of progressive gray matter loss on magnetic resonance imaging in the early years of schizophrenia could have many explanations including the effects of medication, a programmed loss of neuropil, excitotoxic degeneration or a plastic response to decreased activity; 2- it is now possible to track subtle glutamatergic changes in living schizophrenic patients with magnetic resonance spectroscopy at high field strength in addition to gray matter changes; 3- there is a cascade of structural and neurochemical changes in the brains of schizophrenic patients in the first few years of illness which are likely related to the disease process rather than medication and, 4- current treatments do not seem to have much effect on these changes suggesting that a better understanding of this

process could lead to more effective medications for this devastating disorder.

#### SUMMARY:

**Objective:** Reports of progressive volumetric changes in some schizophrenic patients have lead to a renewed interest in neuronal degeneration in schizophrenia. However, these changes are not necessarily related to neuronal degeneration so it is important to examine other metabolic parameters in these patients over time. In this ongoing study, we hypothesized that: 1- cortical gray matter levels would decrease over the course of thirty months in first episode but not healthy subjects and 2- glutamatergic metabolites in the anterior cingulate and thalamus would be initially increased and then decreased at thirty months in the same patients if an excitotoxic process was involved. **Method:** Voxel-based statistical parametric mapping comparisons of gray matter were made between sixteen never-treated, first episode schizophrenic patients followed up after stabilization on medication at approximately ten months and at thirty months and sixteen healthy volunteers of comparable age, sex, handedness and parental educational levels studied at baseline and thirty months. Levels of glutamate, glutamine and N-acetylaspartate were quantified in these subjects with a 4 Tesla system using a stimulated echo acquisition sequence from 1.5 cc voxels in the left anterior cingulate and medial thalamus. **Results:** Levels of glutamine were higher in never-treated patients than healthy controls in the anterior cingulate and thalamus ( $p < 0.04$ ) but no differences were seen in gray matter volumes between these groups. Widespread loss of gray matter ( $p < 0.001$ , corrected), particularly in prefrontal, temporal and posterior cingulate regions was found in first episode patients but not healthy subjects after thirty months. These same patients demonstrated decreased glutamine levels at thirty months in the thalamus ( $p < 0.04$ ). There were no differences in glutamatergic metabolites between the never-treated and stabilized on medication assessments. Minimal loss of gray matter was observed in schizophrenic patients after stabilization on medication. Levels of N-acetylaspartate were decreased in the thalamus in schizophrenic patients at thirty months in comparison to the stabilized on medication assessment but no differences were seen in comparison to the never-treated assessment. **Conclusions:** The absence of differences in gray matter between never-treated, first episode patients and healthy volunteers is not consistent with a programmed loss of neuropil suggested by some investigators. Few differences were seen after stabilization on medication indicating that neither clinical state nor medication can account for these observations. The finding of gray matter loss in regions such as the posterior cingulate in association with glutamatergic changes in other parts of the limbic system, such as the thalamus, could be consistent with neurodegeneration. However, this would not explain gray matter loss in other parts of the brain. It is more likely that these gray matter losses are plastic changes related to decreased subcortical glutamatergic activity, the cause of which remains unknown. A better understanding of this process could lead to more effective treatments of this disorder.

#### REFERENCES:

1. Théberge J, Bartha R, Drost DJ, Menon RS, Malla AK, Takhar J, et al: Glutamate and glutamine measured with 4.0 T proton MRS in never-treated patients with schizophrenia and healthy volunteers. *Am J Psychiatry* 2002; 159:1944-1946.
2. Théberge J, Al-Semaan Y, Williamson PC, Menon RS, et al: Glutamate and glutamine in the anterior cingulate and thalamus of medicated patients with chronic schizophrenia and healthy comparison subjects. *Am J Psychiatry* 2003; 160: 2231-2233.



## SCIENTIFIC AND CLINICAL REPORT SESSION 20—MEDICAL ISSUES IN THE TREATMENT OF SCHIZOPHRENIA

No. 58

### METABOLIC SYNDROME IN THAI PATIENTS WITH SCHIZOPHRENIA: PREVALENCE AND INCIDENCE

Manit Srisurapanont, M.D. *Chiang Mai University, Psychiatry, Department of Psychiatry, Faculty of Medicine, Chiang Mai University, Muang, Chiang Mai, 50200, Thailand*, Surinporn Likhithsathian, M.D., Vudhichai Boonyanaruthee, M.D., Chawanant Charmsilp, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize that Thai schizophrenic patients are likely to have and likely to develop metabolic syndrome.

#### SUMMARY:

**Objective:** This prospective study estimated point prevalence and 1-year incidence rates of metabolic syndrome in Thai schizophrenic patients. **Method:** We screened all schizophrenic patients visited our psychiatric clinic. Each subject was assessed at baseline, 6 month, and 12 month to determine the presence of metabolic syndrome. **Results:** Of 101 schizophrenic patients visited the clinic, 57 subjects included in the study. Eight of 57 subjects (14.0%) had metabolic syndrome at baseline. These subjects were older and had later onsets of schizophrenia than those without metabolic syndrome. Of 45 subjects participated in the incidence evaluation, 6 and 2 patients (17.8%) developed metabolic syndrome at 6 and 12 months, respectively. The demographic data and characteristics of those developing and not developing metabolic syndrome were not different. **Conclusions:** Thai schizophrenic patients are likely to have and develop metabolic syndrome. These findings support the importance of assessing and monitoring metabolic syndrome in schizophrenic patients.

#### REFERENCES:

1. Kato MM, Currier B, Gomez CM, Hall L, Gonzalez-Blanco M. Prevalence of metabolic syndrome in Hispanic and non-Hispanic patients with schizophrenia. *Prim Care Companion J Clin Psychiatry* 2004; 6:74-77.
2. American Diabetes Association, American Psychiatric Association, American Association of Clinical Endocrinologists and North American Association for the Study of Obesity. *Diabetes Care* 2004; 27:596-601.

No. 59

### THE SWEDISH STUDY OF METABOLIC RISKS IN PSYCHIATRY

Urban P. Osby, M.D. *Karolinska Institutet, Molecular Medicine and Surgery, Centrumsmottagningen, Box 1527, Solna, SE-171 29, Sweden*

#### EDUCATIONAL OBJECTIVES:

To recognize the importance of preventing increased metabolic risks in order to improve outcome for patients with long-term psychosis

**Objective:** This is a prospective study of metabolic risks for patients with long-term psychosis, related to a) antipsychotic medication b) life style factors and c) risk genes for psychosis and metabolic disorders. **Method:** Information on diagnosis, level of functioning (GAF and CGI), duration of illness, duration of treatment, present and previous antipsychotic medication will be recorded for 1000

patients from specialized outpatient psychosis units. CHD, diabetes and hypertonia among patients and first-degree relatives will be assessed, as well as smoking habits and alcohol intake. Blood pressure, weight, height and waist circumference will be measured, as well as Hb, ASAT, GT, creatinin, blood glucose, TSH, Chol, TG, LDL-chol, and HDL-chol. Blood samples for DNA preparation will be taken. Patients will be assessed prospectively for four years. Drug-naïve patients will be assessed before and after the start of medication. Recruitment of patients has started. **Results:** Large population-based studies of metabolic risk factors in psychosis are necessary to determine the degree of metabolic risks and to what extent drug treatment, lifestyle factors or shared genetic risks contribute. **Conclusion:** The study will enable prevention.

#### SUMMARY:

**Objective:** This is a prospective study of metabolic risks for patients with long-term psychosis, including schizophrenia, related to a) antipsychotic medication b) life style factors and c) risk genes for psychosis and metabolic disorders. **Method:** For patients from specialized psychiatric outpatient psychosis units, psychiatric information on diagnosis, level of functioning (GAF and CGI), duration of illness, duration of treatment, present and previous antipsychotic medication is being recorded, as well as metabolic risk information such as CHD, diabetes and hypertonia among patients and first-degree relatives and smoking habits and alcohol intake is assessed. Blood pressure, weight, height and waist circumference is measured, and lab tests are performed, including Hb, ASAT, GT, creatinin, blood glucose, TSH, Chol, TG, LDL-chol, and HDL-chol. Samples are also taken for DNA and further serum and plasma analyses. Patients will be assessed prospectively for four years. More than 200 patients have been recruited so far, and we aim for 400 by next spring. **Results:** Large population-based studies of metabolic risk factors in psychosis are necessary to determine the degree of metabolic risks and to what extent drug treatment, lifestyle factors or shared genetic risks contribute. **Conclusions:** The prospective design will enable prevention of metabolic risks. The findings of the study will form the basis for intervention and preventive programs.

#### REFERENCES:

1. Excess mortality in schizophrenia in Stockholm County, Sweden.
2. Excess mortality in bipolar and unipolar disorder in Sweden.

No. 60

### OLANZAPINE TREATMENT DOES NOT INCREASE TEN-YEAR CARDIOVASCULAR RISK: COMPARISON WITH HALOPERIDOL IN PATIENTS WITH SCHIZOPHRENIA

Yoram Barak, M.D. *Abarbanel Mental Health Center, Psychogeriatrics, 15 KKL Street, Bat Yam, 59100, Israel*, Marnina Swartz, M.D., Igor Plopsy, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize and quantify the 10-year cardiovascular risk associated with antipsychotic treatment prescribed to patients. In addition, the selection of specific psychotropic compounds that may be associated with increased risk of metabolic syndrome will be carried out with emphasis on long-term risk assessment.

#### SUMMARY:

**Objective:** The introduction of second generation antipsychotics (SGA) represents a major advance in the treatment of schizophrenia. The metabolic adverse effects and cardiovascular risk associated with SGA have been widely researched with focus on particular organ systems. However, the use of quantifiable scales to measure this risk is lacking. The present study was designed to evaluate if there is added cardiovascular disease (CVD) risk in switching

schizophrenia patients from typical antipsychotics to the SGA olanzapine. Method: Risk status was determined by the 10-year risk assessment as recommended by the USA National Heart, Lung, and Blood Institute. This was carried out with Framingham scoring to identify individuals whose short-term (10-year) risk warrants consideration of intensive treatment. We computed this risk for schizophrenia patients treated by haloperidol for a period of 6 months or more and again following subsequent 6-months treatment by olanzapine. Results: Fifty-five medical records of subjects suffering from schizophrenia and who fulfilled the inclusion criteria were identified. The statistical analysis includes 43 records. Exclusion is detailed in the method section.

There were 25 male and 18 female patients in this group. Mean age was 40.7 + 2.4 years. The group was composed mainly of patients suffering from schizophrenia (N=32, 74%) and 11 subjects were diagnosed as suffering from schizoaffective disorder. Mean olanzapine dose at the end of 6 months of treatment was 13.8 + 4.6 mgs/daily (range: 2.5 to 20).

The mean 10-year % risk of CVD for the group while on haloperidol treatment was 4.58 + 0.9 and after 6 months of exposure to olanzapine it was reduced to 4.12 + 0.9 (p= NS). Changes in the total risk and each evaluated risk variable were not statistically significant, except for a decrease in resting blood pressure (BP). Mean systolic BP values during the haloperidol treatment period were 135 + 12 compared with a mean of 127 + 8 after 6 months of olanzapine treatment. Thus, the mean change (decrease) in risk (expressed as % 10-year CVD risk) attributed to this variable was -0.26 + 0.12, p= 0.032.

It is important to note that all patients who were smokers at the initial risk evaluation did not change this habit and neither did any patient take up smoking during the study period. Conclusions: Switching schizophrenia patients from typical antipsychotic treatment to olanzapine does not increase quantifiable long-term risk of cardiovascular disease.

#### REFERENCES:

1. Meltzer HY, Davidson M, Glassman AH, Vieweg WV. Assessing cardiovascular risks versus clinical benefits of atypical antipsychotic drug treatment. *J Clin Psychiatry* 2002;63(Suppl 9):25-29.
2. Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). *JAMA* 2001;285:2486-2497.

## SCIENTIFIC AND CLINICAL REPORT SESSION 21—NEUROPSYCHIATRY

### No. 61 PSYCHOSOCIAL TREATMENT OF DEPRESSION IN PARKINSON'S DISEASE

Amy Farabaugh, Ph.D. *Massachusetts General Hospital, psychiatry, 15 Parkman Street, WACC-812, Boston, MA, 02114*, Aila J. McCutchen, Psy.D., Jacqueline Buchin, Ph.D., John Growdon, M.D., Liang Yap, Ph.D., Joel A. Pava, Ph.D., Maurizio Fava, M.D.

#### EDUCATIONAL OBJECTIVES:

The participant should be able to appreciate the challenges of treating depression in Parkinson's disease, and the potential benefit of a psychosocial treatment for these patients.

#### SUMMARY:

Objective: Major depressive disorder (MDD) is common in Parkinson's disease (PD) and appears to influence quality of life more so than motoric disability. The goal of this study is to assess the efficacy of cognitive behavioral therapy (CBT) among depressed PD patients.

Method: We screened 158 individuals with a primary diagnosis of PD for MDD by using the self-rated HANDS. Of those, 19 patients agreed to be assessed for MDD with the SCID-P and to be considered for cognitive-behavioral therapy (CBT) for depression. Ten of these 19 PD patients (women = 5; mean age = 62.2 years of age) met criteria for MDD and enrolled in an open treatment study of 12 weeks of individual CBT treatment. Results: Among these 10 PD patients with MDD, our SCID-P assessments revealed that the number of patients who endorsed specific depressive symptoms is as follows: 8 patients endorsed depressed mood, 8 endorsed diminished interests, 5 endorsed weight/appetite changes, 6 endorsed sleep disturbances, 6 endorsed agitation/retardation, 8 endorsed fatigue, 9 endorsed worthlessness, 8 endorsed concentration difficulties, and 2 patients endorsed thoughts of death. Since study enrollment and treatment are still ongoing, we are reporting here only a preliminary analysis of our treatment study. At this point of the study, at least 6 patients have completed 8 weeks of treatment and 3 have completed the 12 week study. We have noted a decrease in HAMD-17 score from 16.83+3.29 at screen to 12.17+8.28 at week 8, and the mean HAM-D score of the three completers at week 12 is 8.67+6.35. Conclusions: From our very preliminary observations, it appears that the symptom profile of PD patients with MDD may be suitable for a psychosocial intervention. If CBT is found in our study to be effective in the treatment of depression in PD, it would offer the advantage of reducing the burden of potential drug-drug interactions and some patients may find a non-pharmacological intervention more acceptable.

#### REFERENCES:

1. Weintaub D: Diagnosing and treating depression in patients with Parkinson's disease. *Psych Annals* 2004; 34: 299-304.
2. Serra-Maestres J, Ring H: Evidence supporting a cognitive model of depression in Parkinson's disease. *J Nerv Men Disease* 2002; 190: 407-410.

### No. 62 FREQUENCY OF EEG ABNORMALITIES AND RESULTS OF ANTIEPILEPTIC DRUG THERAPY IN UNSTABLE MOOD DISORDERS

Drake Duane, M.D. *Institute for Developmental Behavioral Neurology, 10210 North 92nd Street Suite 300, Scottsdale, AZ, 85258*

#### EDUCATIONAL OBJECTIVES:

To clarify the role of EEG and antiepileptic therapy in bipolar or cyclical mood disorders.

#### SUMMARY:

Objective: To investigate the frequency of EEG epileptogenesis in adolescent and adult outpatients psychiatrically diagnosed as bipolar or cyclic mood disorder and the effects of antiepileptic therapy if employed. Method: Retrospective analysis of 42 patient evaluations (24 females, mean age 37 years, range 14-52) performed between 1/2000 and 12/2004 in whom a recent prior psychiatric diagnosis of bipolar I or II or cyclic mood disorder (DSM IV R) had been made. Patients underwent a behavioral neurologic evaluation: medical and psychiatric family history, personal developmental, medical and psychiatric history, quantitative neurological examination, neuropsychological studies, blood work, MMPI, routine and digitally analyzed EEG (10/20 system, gold electrodes, certified EEG technologist, interpretation by fellow of the American Clinical Neurophysiological Society). No patient was on antiepileptic drug (AED) therapy at the time of the investigation. No patient had a prior diagnosis of epilepsy, clinical seizure or a prior EEG. Results: 18 patients (45%) had EEG abnormalities classified as dysrhythmia grade III (Mayo Clinic classification) with focal epileptogenesis, 12 with dysrhythmia grade II (28%). Twelve studies included sleep

recordings. In 21 of the 30 cases with abnormal EEG (70%), AED Rx (lamotrigine, levetiracetam, topiramate or oxcarbazepine) was introduced and proved effective in stabilizing mood without serious adverse events in 18 (85%) over 6 to 60 months (mean 36) of follow up. Conclusions: In patients with clinically unstable mood, EEG investigation may yield evidence of cortical physiological abnormalities warranting a rational trial of AED therapy.

#### REFERENCES:

1. Ettinger AB, Reed M, Cramer J. Depression and co-morbidity in community-based patients with epilepsy or asthma. *Neurology* 2004;63:1008-1014.
2. Ettinger AB, Reed ML, Goldberg JF, Hirschfeld RMA. Prevalence of bipolar symptoms in epilepsy vs other chronic health disorders. *Neurology* 2005; 65:535-540.

#### No. 63

### HOW TO FACE® JUVENILE EPILEPSY AND BIPOLAR DISORDER: CLINICAL CHALLENGES

Smdar Celestin-Westreich, Ph.D. *Vrije Universiteit Brussels, Developmental & Life Span Psychology, Pleinlaan 2, Building C, Brussels, 1050, Belgium*, Leon-Patrice Celestin, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to: a) Identify different manifestations of mania in the context of epilepsy and Bipolar Disorder; b) Recognise underlying indications of possible juvenile Bipolar Disorder & links with risk factors, c) Gain insight in clinical challenges for identifying youth with epilepsy who are at-risk for developing Bipolar Disorder.

#### SUMMARY:

Objective: Novel anti-epileptic treatments actualized the question of commonalities between Bipolar Disorder and certain epilepsies. This report examines clinical challenges of cases in which childhood epilepsy is associated with later Bipolar Disorder diagnosis. Method: In the context of the multisite European FACE® programme (for "Facilitating Adjustment of Cognitions and Emotions"), a clinical case series (n=9) was analyzed with a developmental mapping procedure including relevant factors extracted from systematic research review (e.g. family history, illness-onset, status epilepticus, interictal and bipolar mania characteristics, life events, medication follow-up). Patients (six boys, three girls), first diagnosed and treated for epilepsy at ages 3 to 7, were examined after referral following drug therapy discontinuation (ages 12 to 18). Results: Comorbid Bipolar Disorder in (mostly temporal lobe) epilepsy, although poorly documented, may amount to 8-13% according to recent prevalence estimates. All investigated cases showed development of paroxysmic manifestations following single/recurring epileptic episodes, presenting as fugues, theft, psychomotor agitation, impulsive acting-out. One case also involved pseudoseizures sharing phenomenology with both bipolar mania and epilepsy. Epilepsy treatment discontinuation was associated in all cases with Bipolar Disorder manifestations at puberty following disruptive life events. Seven cases carried family antecedents of depression and/or (hypo)mania. Conclusions: Early-onset Bipolar Disorder may go unrecognized in the context of overlapping symptoms with epileptic syndrome when these benefit from similar medication modalities. As applied in the FACE programme®, treatment effectiveness should benefit from systematic focus in clinical follow-up on discriminating between manifestations of primary mania, secondary mania and pseudoseizures.

#### REFERENCES:

1. Ettinger AB, Reed ML, Goldberg JF, Hirschfeld RM. Prevalence of bipolar symptoms in epilepsy vs other chronic health disorders. *Neurology* 2005; 65(4): 535-540.

2. Kudo T, Ishida S, Kubota H et al.: Manic episode in epilepsy and bipolar I disorder: a comparative analysis of 13 patients. *Epilepsia* 2001; 42(8):1036-1042.

### SCIENTIFIC AND CLINICAL REPORT SESSION 22—INTERNATIONAL EPIDEMIOLOGY

#### No. 64

### MENTAL HEALTH IN IRANIAN MEDICAL STUDENTS AND DOCTORS

Seyed Mohammad Assadi, M.D. *Tehran University of Medical Sciences, Psychiatry, South Kargar Avenue, Roozbeh Psychiatric Hospital, Tehran, 13337, Iran (Islamic Republic of)*, Maryam Noroozian, M.D., Sayed Vahid Shariat, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand that psychological stress is high in medical students and doctors throughout the world and is accompanied by indifference and cynicism in their interpersonal relationships.

#### SUMMARY:

Objective: Despite research in Western countries finding high levels of psychiatric problems in medical students and doctors, little is known about the difficulties faced by medical staff in the rest of the world. The aim of present study was to assess psychiatric morbidity and interpersonal attitude in a representative sample of Iranian medical students and practitioners. Method: All general practitioners attending a Continuous Medical Education program, all first year medical students and all final year interns in Tehran University of Medical Sciences were recruited. The final sample consisted of 263 participants who rated the 28-item version of the General Health Questionnaire (GHQ-28) and the Mach IV scale. Results: Using the recommended GHQ-28 cutoff point, 44% of participants had psychiatric disorders. The GHQ-28 scores were higher in students than interns or general practitioners and in women compared with men. Psychiatric morbidity was associated with high scores on the Mach-IV. Conclusions: Psychiatric morbidity appeared to be very high in Iranian medical students and doctors. Women were in particular risk. Psychiatric problems were related to indifference and cynicism, which may interfere with empathic relationship and may cause suboptimal patient care.

#### REFERENCES:

1. Bellini LM, Baime M, Shea JA: Variation of mood and empathy during internship. *JAMA* 2002; 287:3143-3146.
2. Shanafelt T, Bradley K, Wipf J, Back A: Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med* 2002; 136:358-367.

#### No. 65

### THREE-YEAR, FOLLOW-UP STUDY OF THE PSYCHOSOCIAL PREDICTORS OF DELAYED AND UNRESOLVED POST-TRAUMATIC STRESS SYMPTOMS OF GERIATRIC EARTHQUAKE SURVIVORS IN YU-CHI, TAIWAN

Frank H. Chou, M.D. *Kai-Suan Psychiatric Hospital, Department of Community, No.130, Kai-Suan 2nd Rd, Kaohsiung, Lin-Ya 802, Taiwan Republic of China*

**EDUCATIONAL OBJECTIVES:**

The longitudinal course of PTSS at 3 year after the quake could be predicted as early as 6 months after the earthquake on the basis of putative factors for PTSD, PTSD-related symptoms.

The main purpose of this study is to predict the longitudinal course of posttraumatic stress symptoms (PTSS) of the senior survivors at 3 years after a catastrophic earthquake by using multivariate data presented at six months after the impact. At 3 years after the quake, 5.6% of PTSS-positive participants at intake were still unresolved and 2.9% of PTSS-negative participants developed PTSS, delayed onset type (Delayed PTSS). 'Decrease in social activity', 'Prominent financial loss' and 'difficulty falling or staying asleep' were predictive factors included in the regression models for delayed PTSS, and PTSS-positive at follow-up.

**SUMMARY:**

**Objective:** The main purpose of this study is to predict the longitudinal course of posttraumatic stress symptoms (PTSS) of the senior survivors at 3 years after a catastrophic earthquake by using multivariate data presented at six months after the impact. **Method:** A population survey was done in a Taiwan township near the epicenter of a severe earthquake. Trained assistants and psychiatrists using the Medical Outcomes Study Short Form-36 (MOS SF-36) and Disaster-Related Psychological Screening Test (DRPST) interviewed earthquake survivors 65 years of age or older, to assess quality of life (QOL) and current and incident psychopathology. A total of 585 respondents were surveyed over the 3-year follow-up period. **Results:** At 3 years after the quake, 5.6% of PTSS-positive participants at intake were still unresolved and 2.9% of PTSS-negative participants developed PTSS, delayed onset type (Delayed PTSS). 'Decrease in social activity', 'Prominent financial loss' and 'difficulty falling or staying asleep' were predictive factors included in the regression models for delayed PTSS, and PTSS-positive at follow-up. **Conclusions:** The longitudinal course of PTSS at 3 year after the quake could be predicted as early as 6 months after the earthquake on the basis of putative factors for PTSD, PTSD-related symptoms.

**REFERENCES:**

1. Chou FH, Chou P, Lin C, Su TT, Ou-Yang WC, Chien IC, Su CY, Lu MK, Chen MC. The relationship between quality of life and psychiatric impairment for a Taiwanese community post earthquake. *Qual Life Res* 2004; 13:1089-97.
2. Chou FH, Su TT, Ou-Yang WC, Chien IC, Lu MK, Chou P. Establishment of a disaster-related psychological screening test. *Aust NZ J Psychiatry* 2003; 37:97-103.

**No. 66**

**THREE-YEAR, FOLLOW-UP STUDY OF THE RELATIONSHIP BETWEEN POST-TRAUMATIC STRESS SYMPTOMS AND QUALITY OF LIFE AMONG GERIATRIC EARTHQUAKE SURVIVORS IN YU-CHI, TAIWAN**

Kuan-Yi Tsai, M.D. *Kai-Suan Psychiatric Hospital, Department of Community, No.130, Kai-Suan 2nd Rd, Kaohsiung, Lin-Ya 802, Taiwan Republic of China*

**EDUCATIONAL OBJECTIVES:**

When individuals suffered from impact of disaster as earthquake, they seemed to have more psychiatric impairment and lower quality of life. We followed fixed population who suffered from catastrophic earthquake for three years.

Taking into account the demographic data, putative risk factors, and MOS SF-36 scores at 0.5 year, the longitudinal course of PTSS still affected the QOL of the geriatric earthquake survivors at follow-up.

**SUMMARY:**

**Objective:** To evaluate prospectively the relationship between the course of posttraumatic stress symptoms (PTSS) and quality of life (QOL) among geriatric earthquake survivors. **Method:** A population survey was done. Trained assistants using the Medical Outcomes Study Short Form-36 (MOS SF-36) and Disaster-Related Psychological Screening Test interviewed earthquake survivors 65 years of age or older. A total of 679 respondents were surveyed over the 3-year follow-up period.

**Results:** At 0.5 and 3 years after the earthquake, the estimate rate of PTSS was 25.8% and 3.8% respectively. The survivors suffering from PTSS scored lower for each concept of the MOS SF-36 at these two time intervals. Three years after the earthquake, change in the eight concepts and two domains of the MOS SF-36 showed a negative trend for survivors classified as being persistent health, recovering, having PTSS of delayed onset type, and having persistent PTSS. **Conclusions:** Taking into account the demographic data, putative risk factors, and MOS SF-36 scores at 0.5 year, the longitudinal course of PTSS still affected the QOL of the geriatric earthquake survivors at follow-up.

**REFERENCES:**

1. Tsai KY, Chou FH, Ou-Yang WC et al. Association of psychiatric diseases and quality of life among earthquake survivors in Taiwan. *Taiwanese Journal of Psychiatry*, 2004; 18:108-117.
2. Chou FH, Chou P, Su TT, Ou-Yang WC, Chien IC, Lu MK, Huang MW. Survey of quality of life and related risk factors for a Taiwanese village population 21 months after an earthquake. *Aust NZ J Psychiatry* 2004; 38:358-364.

**WEDNESDAY, MAY 24, 2006**

**SCIENTIFIC AND CLINICAL REPORT SESSION 23—SLEEP DISORDERS**

**No. 67**

**EFFECT OF ARMODAFINIL ON REDUCING FATIGUE IN PATIENTS WITH NARCOLEPSY**

Russell Rosenberg, Ph.D. *Northside Hospital Sleep Medicine Institute, 5780 Peach Tree-Dunwoody Road, Suite 150, Atlanta, GA, 30342, Richard Bogan, M.D.*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to recognize the benefits armodafinil has in reducing fatigue-related symptoms in patients with excessive sleepiness associated with narcolepsy.

**SUMMARY:**

**Objective:** Fatigue can negatively impact quality of life. The effects of armodafinil, a wake-promoting agent that is the R-enantiomer of racemic modafinil, on fatigue were evaluated in patients with narcolepsy. **Method:** This 12-week, multicenter, double-blind study randomized patients to receive armodafinil 150 (n=65) or 250 mg/day (n=67) or placebo (n=64). The 9-item Brief Fatigue Inventory (BFI) was used to subjectively assess the severity and impact of fatigue on daily functioning using an 11-point scale (0-10). Higher scores indicated greater fatigue severity or impact. Average and worst fatigue scores and the scores on 6 interference items (general activity, mood, walking ability, normal work, relations with others, and enjoyment of life) on the BFI were analyzed. **Results:** Patients reported moderate-to-severe fatigue at baseline. Armodafinil 150

and 250 mg/day significantly reduced average fatigue scores compared with placebo at final visit (mean $\pm$ SD change from baseline,  $-1.5\pm 2.1$ ,  $-1.3\pm 2.1$ , and  $-0.3\pm 1.9$ , respectively;  $P<.05$ ). At final visit, both doses showed a trend toward improvement in worst fatigue scores ( $P=.08$ ). Armodafinil showed improvement on all 6 interference items ( $P<.05$ ). Conclusions: Armodafinil 150 and 250 mg/day may reduce the severity and impact of fatigue in patients with narcolepsy.

Funding Source: The research was sponsored by Cephalon, Inc.

#### REFERENCES:

1. American Academy of Sleep Medicine: The International Classification of Sleep Disorders, Second Edition: Diagnostic and Coding Manual. Westchester, IL, American Academy of Sleep Medicine, 2005.
2. Mendoza TR, et al: The rapid assessment of fatigue severity in cancer patients. Use of the Brief Fatigue Inventory. *Cancer* 1999; 85:1186-1196.

#### No. 68

### EFFECT OF ARMODAFINIL ON ATTENTION IN PATIENTS WITH EXCESSIVE SLEEPINESS ASSOCIATED WITH NARCOLEPSY, OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYNDROME, AND SHIFT WORK SLEEP DISORDER

Keith Wesnes, Ph.D. *Cognitive Drug Research Ltd, Gatehampton Road, Goring-on-Thames, RG8 0EN, United Kingdom*, Gwendolyn E. Niebler, D.O., Sanjay Arora, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the effects armodafinil has on attention in patients with excessive sleepiness associated with narcolepsy, obstructive sleep apnea/hypopnea syndrome, and shift work sleep disorder.

#### SUMMARY:

Objective: To evaluate the effect of armodafinil, a wake-promoting agent that is the *R*-enantiomer of racemic modafinil, on attention in patients with excessive sleepiness (ES) associated with narcolepsy, obstructive sleep apnea/hypopnea syndrome (OSA/HS), and shift work sleep disorder (SWSD). Method: Four 12-week, double-blind studies evaluated the efficacy and safety of armodafinil (150 and 250 mg/day) or placebo in 1108 patients. Attention was assessed using the Cognitive Drug Research computerized assessment system at baseline and at weeks 4, 8, and 12. Testing was performed at 2-hour intervals throughout the day (OSA/HS and narcolepsy) or night (SWSD). Data were averaged across 4 test sessions. Results: Armodafinil significantly improved power of attention versus placebo at final visit in patients with narcolepsy (150 mg/day) and SWSD ( $P<.05$ ) but not in patients with OSA/HS. Armodafinil significantly improved continuity of attention versus placebo at final visit in patients with SWSD ( $P=.0005$ ) only. A significant change from baseline at final visit in cognitive reaction time was observed with armodafinil 150 and 250 mg/day versus placebo ( $P<.05$ ) in patients with narcolepsy but not with OSA/HS or SWSD. Conclusions: Armodafinil improved attention in patients with ES associated with narcolepsy and SWSD.

Funding Source: The research was sponsored by Cephalon, Inc.

#### REFERENCES:

1. Wesnes K, et al: The assessment of human information processing abilities in psychopharmacology. In *Human Psychopharmacology: Measures and Methods*, edited by Hindmarch I, Stonier PD, Chichester, Wiley, 1987, pp 79-92.
2. Wesnes KA, et al: Cognitive performance and mood after a week-end on call in a surgical unit. *Br J Surg* 1997; 84:493-495.

#### No. 69

### ARMODAFINIL IMPROVES WAKEFULNESS IN PATIENTS WITH EXCESSIVE SLEEPINESS ASSOCIATED WITH NARCOLEPSY, OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYNDROME, AND SHIFT WORK SLEEP DISORDER

Milton Erman, M.D. *Pacific Sleep Medicine Services, Inc., 10052 Mesa Ridge Court, #101, San Diego, CA, 92075*, Gary Zammit, Ph.D., Gwendolyn E. Niebler, D.O., Sanjay Arora, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the benefits of managing patients with excessive sleepiness associated with a variety of sleep disorders with armodafinil.

#### SUMMARY:

Objective: Armodafinil, a wake-promoting agent that is the *R*-enantiomer of racemic modafinil, was evaluated in patients with excessive sleepiness (ES) associated with narcolepsy, obstructive sleep apnea/hypopnea syndrome (OSA/HS), or shift work sleep disorder (SWSD). The pharmacokinetic profile of armodafinil indicates sustained concentrations throughout the day. Method: Four 12-week, double-blind, placebo-controlled studies evaluated the efficacy and safety of once-daily armodafinil (150 and 250 mg/day). Assessments included the Maintenance of Wakefulness Test (MWT; narcolepsy and OSA/HS studies), Multiple Sleep Latency Test (MSLT; SWSD study), and Clinical Global Impression of Change (all studies). Safety was evaluated. Results: Overall, 1108 patients (narcolepsy,  $n=196$ ; OSA/HS,  $n=658$ ; SWSD,  $n=254$ ) were randomized to an armodafinil dose or placebo. Compared with placebo, armodafinil significantly ( $P<.05$ ) improved sleep latencies (MWT or MSLT) in all 3 populations, and effects were seen at late-day time points. Armodafinil significantly improved overall clinical condition compared with placebo ( $P\le.01$ ). Headache was the most common adverse event across studies; armodafinil was well tolerated. Conclusions: Armodafinil is an effective and well-tolerated treatment for improving wakefulness throughout the day and overall clinical condition in patients with ES associated with narcolepsy, OSA/HS, and SWSD.

Funding Source: The research was sponsored by Cephalon, Inc.

#### REFERENCES:

1. Mittleman MM, Gujavarty KS, Browman CP: Maintenance of Wakefulness Test: a polysomnographic technique for evaluating treatment efficacy in patients with excessive somnolence. *Electroencephalogr Clin Neurophysiol* 1982; 53:658-661.
2. Thorpy MJ: The clinical use of the Multiple Sleep Latency Test. *Sleep* 1992; 15:268-276.

### SCIENTIFIC AND CLINICAL REPORT SESSION 24—ECT

#### No. 70

### PREDICTORS OF REFERRAL FOR ECT

Bonnie L. Szarek, R.N. *Institute of Living, Burlingame Center for Psychiatric Research and Education, 200 Retreat Avenue, Hartford, CT, 06106-3309*, John W. Goethe, M.D., Joanna H. Fogg-Waberski, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to identify demographic and clinical features associated with ECT.

**SUMMARY:**

**Objective:** To identify variables associated with the use of ECT in major depressive Disorder (MDD). **Method:** For the period 8/1/02-1/31/05 all patients treated with ECT (n=341) and all with a diagnosis of MDD (n=4708) were retrospectively identified. Demographic and clinical variables were recorded. Logistic regression was used to identify variables associated with ECT. **Results:** ECT was administered to 5.5% (n=223) of all MDD patients. ECT use was *more* common in older patients (mean age=55.8 versus 40.0,  $p<.001$ ; OR=3.3) and those with psychotic features (9.1% versus 4.0% of those without psychosis,  $p<.001$ ; OR=2.1) and *less* common in Latinos (0.5% versus 2.3% of blacks and 8.5% of whites,  $p<.005$ ; OR=0.1) and in those with concurrent Axis I diagnoses (35.0% of ECT patients versus 59.3% of non-ECT patients,  $p<.001$ ; OR=0.4). Although MDD was the most common diagnosis treated (65.4%), ECT was also administered to patients with bipolar disorder (18.2%), schizoaffective disorder (10.6%), and schizophrenia (2.6%). Maintenance ECT was given to 59 patients (n=40, 17.9% of sample with MDD). **Conclusions:** Age >60 is a more powerful predictor of who will receive ECT than is psychosis. Black and Latino MDD patients receive ECT less often than White patients.

**REFERENCES:**

- Hermann RC, Ettner SL, Dowart RA, Langman-Dorwart N, Kleinman S: Diagnosis of patients treated with ECT: a comparison of evidence-based standards with reported use. *Psychiatr Serv* 1999; 59:1059-1066.
- Andrade C, Kurinji S: Continuation and maintenance ECT: a review of recent research. *J ECT* 2002;18:149-158.

**No. 71****ECT STIMULUS DOSE AS PHYSIOLOGICAL VOLUME OF SEIZURE FOCI**

Conrad M. Swartz, M.D. *SIU School of Medicine, P O Box 19642, 901 West Jefferson, Springfield, IL, 62794-9642*

**EDUCATIONAL OBJECTIVES:**

Describe the ECT stimulus as a physiological process, express stimulus dose in electrical terms that correspond to physiology, and use this dose expression in clinical treatment.

**SUMMARY:**

**Objective:** The dose of the electrical stimulus of electroconvulsive therapy (ECT) has long been stated as the stimulus charge, in units of millicoulombs (mC). This is simply a measure of the number of electrons in the stimulus. Expressing the dose as the charge alone overlooks the causal relationship between voltage and neuronal depolarization. By itself charge can not correspond to stimulus competency in inducing a seizure. For example, sufficiently low voltage will not depolarize neurons regardless of charge. Similarly, low charge with high voltage will not depolarize neurons. Stating the dose as stimulus energy instead adds the artifact of skin impedance and specifically represents only heat liberation between the electrodes. The objective was to formulate the stimulus dose according to physiology and in terms of both charge and voltage.

**Method:** Stimulus dose was reformulated as volume of seizure foci. In turn an electrical physics model of seizure foci was constructed, dependent on both voltage and charge. A second more detailed model was also used, which accounted for voltages comparable to those employed in clinical deep brain stimulation.

**Results:** The models indicated that stimulus dose is proportional to current cubed multiplied by charge, for constant current stimuli. This corresponds to higher voltage increasing seizure foci in three spatial dimensions, as indicated by the physics of electricity. This implies that any specific stimulus charge delivered at 0.9 amp has a dose 42-60% higher than the same charge at 0.8 amp. The 42%

figure came from the basic model and 60% resulted from the more detailed model.

**Conclusions:** This result conforms to published measurements comparing 0.8 and 0.9 amp instruments. A cubic increase in affected brain volume occurs similarly in deep brain electrical stimulation. This result can be used to compensate the "half-age" bilateral stimulus dosing method to permit successful clinical use at 0.8 amps, where it was previously observed as unreliable. At 0.9 amps this method successfully prescribed 2.5 mC per year of age. The present results translate this to 4 mC per year of age at 0.8 amps. Likewise, these results allow stimulus doses to be appropriately compared between clinical research reports using different instruments or currents, for example when describing seizure threshold. Moreover, these results identify equivalent stimulus doses when substituting one ECT instrument for another, particularly with the same patient.

**REFERENCES:**

- Chanpattana W. Seizure threshold in electroconvulsive therapy: effect of instrument titration schedule. *German J Psychiatry* 2001;51-56 (online at <http://www.gjpsy.uni-goettingen.de>).
- Swartz CM, Manly DT. Efficiency of the stimulus characteristics of ECT. *Am J Psychiatry* 2000; 157:1504-1506.

**No. 72****THE EFFICACY AND OUTCOME OF COMBINING ECT AND ATYPICAL ANTIPSYCHOTICS FOR TREATMENT-RESISTANT DEPRESSION**

Randall T. Espinoza, M.D. *UCLA, Psychiatry and Biobehavioral Sciences, 300 UCLA Medical Plaza #2420, Los Angeles, CA, 90095-9668, Joseph Morrow, B.A., Julie King, R.N., Juanita Jackson, R.N.*

**EDUCATIONAL OBJECTIVES:**

- To describe a method of modification of ECT
- To discuss results of an observational cohort study

**SUMMARY:**

**Objective:** Patients who fail to respond to adequate trials of pharmacotherapy are said to have Treatment-Resistant Depression (TRD) and are frequently referred on to Electroconvulsive Therapy (ECT), where response rates may also be low. Some recent studies suggest that combining atypical antipsychotics and antidepressants may be a useful augmentation strategy for patients with TRD. However, there are limited data on the efficacy and outcome of combining ECT and atypical antipsychotics for augmentation purposes. **Method:** An observational cohort study of all patients undergoing an index ECT series between 1999-2002 at an academic university ECT program.

**Sample:** Ninety-eight patients received an index ECT series. Thirty patients received the combination of ECT plus an atypical antipsychotic and 68 patients received ECT alone. **Outcome Measures:** Clinical global impression ratings at the beginning and at the end of the index ECT series; number of ECT treatments received during index phase; proportion of patients who continued to maintenance ECT. **Results:** The mean change in CGI score from beginning to end of index series was similar between groups ( $\Delta_1 = 4.1$ , combination v  $\Delta_2 = 3.9$ , ECT alone;  $p = 0.46$ ). There was no difference in mean number of index ECT treatments received between groups (9.80, combination v 9.38, ECT alone;  $p = 0.56$ ). However, ANOVA comparison suggested a trend that older age and combined ECT and atypical antipsychotic was associated with a decreasing length of index episode (partial eta squared = 0.04). Patients on the combination of ECT and atypical antipsychotic were 31% more likely to continue on to maintenance ECT, although the result was not statistically significant (RRI 1.31;  $p = 0.3$ ). **Conclusions:** The combination of ECT plus atypical antipsychotic medication does not appear to be an acceleration strategy. However, there is a suggestion that the

combination may be an augmentation strategy, i.e., may improve the extent of response, given the slightly higher proportion of patients who continued to maintenance ECT, i.e., ECT at a reduced frequency to sustain response and remission. A controlled trial of combination ECT and atypical antipsychotic medication is warranted.

#### REFERENCES:

1. Klein N, Sacher J, Wallner H, et al. Therapy of treatment resistant depression: focus on the management of TRD with atypical antipsychotics. *CNS Spectrums* 2004; 9:823-32.
2. The Practice of Electroconvulsive Therapy. Recommendations for Treatment, Training, and Privileging. A Task Force Report of the American Psychiatric Association. Washington, DC, American Psychiatric Press, 2001.

### SCIENTIFIC AND CLINICAL REPORT SESSION 25—HEALTH, NUTRITION, AND WEIGHT IN SCHIZOPHRENIA

No. 73

#### ASSESSING HEALTH AND NUTRITION STATUS OF URBAN PSYCHIATRIC OUTPATIENTS

David J. Hellerstein, M.D. *New York State Psychiatric Institute, 180 Fort Washington Ave., #HP256, New York, NY, 10032*, Goretti Almeida, M.B.A., Nathaniel Mendelsohn, A.B., Stacia Helfand, M.Ed., Michael J. Devlin, M.D., Dianna Dragatsi, M.D., Raquel Miranda, R.N.

#### EDUCATIONAL OBJECTIVES:

Participant should be able to describe health and nutritional issues related to outpatients treated in urban psychiatric settings, with particular reference to the needs of Hispanic patients with chronic mental disorders.

#### SUMMARY:

**Objective:** Many individuals with chronic mental disorders suffer from significant health problems, including obesity, hypertension, and diabetes, which may be exacerbated by psychotropic medications, and may result in excessive morbidity and mortality. The goal of this study was to assess the health status of predominantly Hispanic outpatients in an urban psychiatric treatment program.

**Method:** The health status of 69 patients in an urban day treatment program (of 105 enrollees) was reviewed, including blood pressure, weight, girth, body mass index (BMI), glucose and lipid levels, as well as nutritional habits and medical care. Chart reviews were supplemented by patient interviews and somatic measurements. **Results:** Patients were 51% female, 78% Hispanic, and predominantly between the ages of 25 and 64 years. 57% were diagnosed with schizophrenia-spectrum disorders. 86% were on antipsychotic medications, and 25% were on two antipsychotics. Only 11% of women and 41% of men had normal weight. 29% of women and 18% of men were overweight (BMI = 25-30); and 60% of women and 41% of men were obese (BMI>30). Women and men were a mean of 40 and 22 pounds overweight respectively. Atypical antipsychotic treatment was significantly associated with obesity (BMI>30) ( $\chi^2=5.5, df=1, p<.025$ ). Waist measurements showed significant abdominal obesity among female patients, according to American Heart Association recommended waist circumference for females with BMI>25. Blood pressure was elevated in 77% of patients (45% were pre-hypertensive [with BP 120-139/80-89]; and 32% were hypertensive [with BP >140/90]), and 53% had elevated random blood glucose (>110 mg/dL). Patients generally had had recent medical follow-up, and most had adequate cooking facilities. **Conclusions:** Health status review suggests that these predominantly Hispanic chronically mentally ill individuals are at high risk of cardiac illness,

and highlights the need for developing culturally-sensitive interventions in urban outpatient psychiatric settings.

#### REFERENCES:

1. Marder SR, Essock SM, Miller AL, et al. Physical health monitoring of patients with schizophrenia. *Am J Psychiatry* 2004; 161:1334-1349.
2. Susce MT, Villanueva N, Diaz FJ, de Leon J. Obesity and associated complications in patients with severe mental illnesses: a cross-sectional survey. *J Clin Psychiatry* 2005; 66:167-173.

No. 74

#### ARE FEMALES AT SPECIAL RISK FOR OBESITY IF THEY BECOME PSYCHOTIC? THE LONGITUDINAL NORTHERN FINLAND 1966 BIRTH COHORT STUDY

Hannu J. Koponen, M.D. *University of Oulu, Department of Psychiatry, Peltolantie 5 P.O. Box 5000, Oulu, 90014, Finland*, Sari Lindeman, M.D., Kaisa Saari, M.D., Helinä Hakko, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the risk for weight increase in female psychotic patients.

#### SUMMARY:

**Objective:** Patients with schizophrenia and bipolar disorder may have a greater baseline risk for obesity. However, most investigations have been either cross-sectional or short-term clinical samples, while long-term epidemiological studies of weight change from normal to obese and the pertinent risk factors are rare. The authors studied the associations between weight gain and psychotic disorders in a population-based, long-term cohort sample. **Method:** In a population-based Northern Finland 1966 birth cohort the change of weight between 14 and 31 years was assessed. The change and its associations with health habits in subgroups of patients with a psychotic disorder, a non-psychotic disorder or normal controls were also analysed. **Results:** Even after adjustment for several potential confounders we found a 3.6-fold risk in females with psychotic disorder of changing from under- or normal weight to overweight between the ages of 14 and 31 years. In both sexes, this change was related to negative health habits, such as physical inactivity and high alcohol consumption. Additionally, for women the number of childbirths and chronic diseases and for men, unhealthy diet, were related to becoming overweight. **Conclusions:** Our finding of increased risk for becoming overweight related to psychosis in females is discordant with previous observations that overweight and central obesity are related to male gender. As female psychotic patients seemed to be at particularly high risk for becoming overweight, this should be taken into account when planning psychoeducation and other interventions, such as selection of proper antipsychotic medication.

#### REFERENCES:

1. Thakore JH: Metabolic syndrome and schizophrenia. *Br J Psychiatry* 2005;186:455-456.
2. Susce MT, Villanueva N, Diaz FJ, de Leon J: Obesity and associated complications in patients with severe mental illness: A cross-sectional study. *J Clin Psychiatry* 2005;66:167-173.

No. 75

#### A 12-WEEK OPEN LABEL TRIAL OF TOPIRAMATE FOR LIMITING WEIGHT GAIN DURING OLANZAPINE TREATMENT IN PATIENTS WITH SCHIZOPHRENIA

Jin-Hun Kim *Schizophrenia Research, Neuropsychiatry, 51 Neungdong-Ro, Gwangin-Gu, Seoul, 143711, Republic of Korea*, Seonjin Yim, Junghyun Nam, M.D.

**EDUCATIONAL OBJECTIVES:**

We would like to introduce effective pharmacological treatment in prevention of weight gain in patients with schizophrenia.

**SUMMARY:**

**Objective:** Antipsychotic-related weight gain often necessitates treatment changes or lead to noncompliance. Thus, preventive treatment for weight gain is needed. This 12-week open-label trial evaluated the efficacy and safety of topiramate in limiting weight gain during olanzapine treatment in patients with schizophrenia. **Method:** 60 patients with a DSM-IV diagnosis of schizophrenia were randomized to receive, for a period of 12 weeks, olanzapine (5-20mg/day) either with topiramate (100mg/day) or without. Outcome measures were total body weight, Positive and Negative Syndrome Scale (PANSS), and adverse effects. **Results:** Significantly less weight gain was observed on average at weeks 4,8, and 12 with olanzapine+topiramate combination therapy group compared to olanzapine monotherapy group. Topiramate was well-tolerated and did not adversely affect clinical outcomes. **Conclusions:** Topiramate may have an effect in limiting the weight gain for up to 12 weeks in patients with schizophrenia. However, some methodological limitations need double-blind placebo controlled trial before clinical application.

**REFERENCES:**

1. Littrell KH, Petty RG, Hilgoss NM: Weight loss with topiramate. *Ann Pharmacother* 2001;35:1141-1142.
2. McIntyre RS, Mancini DA, Basile VS: Mechanisms of antipsychotic-induced weight gain. *J Clin Psychiatry* 2001;62(suppl 23):S23-S29.

## SCIENTIFIC AND CLINICAL REPORT SESSION 26—DEVELOPMENTAL ISSUES IN SCHIZOPHRENIA

No. 76

### ALTERED DEVELOPMENTAL TRAJECTORIES IN SCHIZOPHRENIA

Matti K. Isohanni, Dr. Med. Sc. *University of Oulu, Psychiatry, P.O. Box 5000, Peltolantie 5, Oulu, 90014, Finland*, Khanum Ridler, Ph.D., Jouko Miettunen, Ph.D., Graham Murray, M.D., Juha M. Veijola, Dr. Med. Sc., Edward Bullmore, Dr. Med. Sc., Peter B. Jones, Dr. Med. Sc.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to (a) recognize that developmental trajectories and pathways in schizophrenia differ compared to subjects without psychosis, and (b) have a broad understanding of how birth cohorts can provide clues to understanding neuropsychiatric disorders.

**SUMMARY:**

**Objective:** Schizophrenic persons differ developmentally from non-psychotic controls. The longitudinal trajectory of developmental factors can be difficult to tease apart. We examined the developmental trajectory for schizophrenia in a population-based cohort. **Method:** Within the Northern Finland 1966 Birth Cohort we studied developmental pathways across diagnostic groups using developmental markers at birth, at ages 1, 16, and at age 31 (brain morphology, cognitive capacity, clinical status). **Results:** The schizophrenia group achieved developmental milestones later and showed altered patterns of development over time when compared with non-psychotic controls. The pattern of associations between early development and post-onset cognition/brain morphology differed in various diagnostic groups. **Conclusions:** Developmental trajectories in

schizophrenia are distinctly different compared to controls. These findings emphasize the neurodevelopmental aspects and the value of longitudinal birth cohort studies. We conclude that frontal corticocerebellar systems for adult executive function are anatomically related to earlier maturing systems for motor skill acquisition. Abnormalities in early motor development and adult executive function in schizophrenic patients may be explained by longitudinally persistent abnormality in frontal corticocerebellar systems, as anticipated theoretically by a cognitive dysmetria model of schizophrenia.

**REFERENCES:**

1. Isohanni M et al: The persistence of developmental markers in childhood and adolescence and risk for schizophrenic psychoses in adult life. A 34-year follow-up of the Northern Finland 1966 Birth Cohort. *Schizophrenia Research* 71 (2-3) 213-225, 2004.
2. Ridler K, Veijola JM, Tanskanen P, Miettunen J, Chitnis X, Suckling J, Murray G K, Haapea M, Jones PB, Bullmore ET & Isohanni MK. Fronto-cerebellar systems differentially associated with infant motor and adult executive functions in healthy adults co.

No. 77

### CHARACTERISTICS OF THE INTERPERSONAL DISTANCE OF PATIENTS WITH SCHIZOPHRENIA IN THE VIRTUAL ENVIRONMENT

Sung-Hyouk Park, M.D. *Seoul National Hospital, Department of General Psychiatry, 51, Neung-dong Ro, Kwangjin-Gu, Seoul, 143-711, Republic of Korea*, Jae-Jin Kim, M.D., Hee-Jeong Jang, B.A., Chan-Hyung Kim, M.D., Jeonghun Ku, Ph.D., In-Young Kim, M.D., Sun I. Kim, Ph.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to learn about the differences in distancing profile between schizophrenics and controls and to understand the relationship between interpersonal distances and symptoms of schizophrenics.

**SUMMARY:**

**Objective:** Using virtual environment (VE), to explore characteristics of interpersonal distances (IPD) and relationship between IPD and symptoms in schizophrenics. **Method:** We constructed VEs where a male or female virtual human (VH) made one of three expressions (friendly, neutral, or hostile). 30 schizophrenics and 30 controls were recruited. We rated symptoms using PANSS. Subjects completed 6 blocks of trials. In each block, subjects wearing a head-mounted display were required to approach and converse with a VH. We measured distances from VHs. Subsequently, subjects rated emotional valence and arousal of VHs. **Results:** Schizophrenics displayed larger distances than controls ( $p=0.014$ ). Distances from friendly or neutral VHs demonstrated between-group differences, but distances from hostile VHs did not. In contrast to controls ( $p<0.001$ ), schizophrenics ( $p=0.071$ ) didn't show differences in distances according to emotional categories of VHs. Inverse correlation was found between negative syndrome and distances from hostile VHs (male:  $r=-0.405$ ,  $p=0.032$ , female:  $r=-0.389$ ,  $p=0.041$ ). **Conclusions:** Schizophrenics' distancing profile was different than controls. This was because schizophrenics' distances from hostile VHs were not sufficiently larger. Distancing from hostile figures is an unconscious defense mechanism. This study suggests schizophrenics have difficulties processing hostile stimuli at unconscious levels and those difficulties are related with negative syndromes.

**REFERENCES:**

1. Nechamkin Y, Salganik I, Modai I, Ponizovsky AM: Interpersonal distance in schizophrenic patients: relationship to negative syndrome. *International Journal of Social Psychiatry* 2003; 49(3):166-174.



2. Bailenson JN, Blascovich J, Beall AC, Loomis JM: Interpersonal Distance in Immersive Virtual Environments. *Personality and Social Psychology Bulletin* 2003; 29(X): 1-15.

No. 78

### **FAMILIAL RISK OF PSYCHOSIS AND PRODROMAL FEATURES OF PSYCHOSIS AT THE AGE OF 15-16 YEARS**

Juha M. Veijola, M.D. *University of Oulu, Department of Psychiatry, P O Box 5000, Peltolantie 5, Oulu, 90014, Finland*, Pirjo H. Maki, M.D., Hanna Ebeling, M.D., Irma Moilanen, M.D., Anja Taanila, Ed.D., Erika Lauronen, M.D., Jouko Miettunen, Ph.D.

#### **EDUCATIONAL OBJECTIVES:**

In adolescence various kind of symptoms and features are quite common. It is hard to predict who of the individuals may be at risk for developing serious mental disorder later on. One must be careful and not unnecessarily stigmatize anyone behaving non-normatively behaviour or having so called prodromal symptoms.

#### **SUMMARY:**

**Objective:** We were able to study in a general population sample whether subjects with family history of psychosis have more commonly prodromal features of psychosis. **Method:** Members of the Northern Finland 1985/86 Birth Cohort were invited to participate in a field survey conducted during 2001-2002. The field study was extensive including 21 item PROD-screen questionnaire, which includes a subscale of twelve specific prodromal symptoms for psychosis with recommended screening cut off point of 3 or more symptoms. Of the males 3,082 and 3,293 of the females completed the PROD-screen questionnaire. The Finnish Hospital Discharge Register was used to find out psychotic episodes in parents during 1972-2000. **Results:** Of the males 24% and 37% of the females were screen positives. Of the parents 106 had been treated in hospital due to psychosis. The prevalence of screen positives among subjects with family history of psychosis was 26% in males and 36% in females. **Conclusions:** Prodromal features of psychosis are prevalent in adolescence. Due to this it may be difficult to screen subjects at risk for developing schizophrenia with a questionnaire, especially as these symptoms do not appear to be more common among subjects with a relatively high risk of developing psychotic disorder.

#### **REFERENCES:**

1. Heinimaa M et al (2003) PROD-screen - a screen for prodromal symptoms of psychosis. *Int J Methods Psychiatric Res* 12(2): 92-104.
2. Kotimaa AJ et al (2003) Maternal smoking and hyperactivity in 8-year-old children. *J Am Academy Child & Adolescent Psychiatry* 42(7):826-33.

## **SCIENTIFIC AND CLINICAL REPORT SESSION 27—TREATMENT OF SCHIZOPHRENIA**

No. 79

### **AN EFFECTIVENESS TRIAL OF A BRIEF COGNITIVE BEHAVIOURAL INTERVENTION BY MENTAL HEALTH NURSES IN SCHIZOPHRENIA: CLINICALLY IMPORTANT OUTCOMES IN THE MEDIUM TERM**

Shanaya Rathod, M.D. *Hampshire Partnership NHS Trust, Mulfords Hill Centre, 37-39 Mulfords Hill, Tadley Hants, RG26 3HX, United Kingdom*, David G. Kingdon, M.D., Douglas Turkington, M.D.

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participants should be able to

1. Understand the outcomes of brief Cognitive behaviour therapy in relation to recovery, symptom burden and rehospitalisation in schizophrenia at one year follow up.
2. Recognise the role of mental health nurses in delivering Cognitive behaviour interventions to patients with Schizophrenia effectively.
3. Understand the impact of the above on service delivery.

#### **SUMMARY:**

**Objective:** Background: Little is known about the medium term durability of cognitive behavioural therapy (CBT) in a community sample of patients with schizophrenia. If mental health nurses (MHN) can be trained over ten days (with ongoing supervision) to deliver clinically meaningful outcomes in the medium term then CBT would become a viable addition to MHN training.

**Aims:** To investigate whether brief CBT could produce clinically important outcomes in relation to recovery, symptom burden and rehospitalisation in schizophrenia at one year follow up.

**Method:** A multicentre, randomised trial across six sites in the United Kingdom was performed using mental health nurses trained in brief Cognitive behaviour therapy (CBT). The intervention group was compared to treatment as usual (TAU) by raters blind to treatment allocation. The intervention group received six sessions of insight oriented CBT. Their carers received three sessions of CBT. Analysis of symptomatic outcome data was undertaken at 12 month follow up by intention to treat using analysis of covariance. Time to rehospitalisation was examined using Kaplan-Maier methodology. Categorical outcome data for rehospitalisation and occupational recovery were examined by treatment intervention using chi-squared tests. **Results:** Of the 422 patients randomised at baseline 336 were followed up at a mean of 388 days (SD = 53 days). Group mean score was used for dropouts. Patients with schizophrenia who received CBT had significantly more insight ( $p=0.021$ )(NNT= 11) and significantly less negative symptoms ( $p=0.002$ )(NNT= 14). Brief CBT protected against the emergence of depression with improving insight (RR=2.19, 1.41, 3.43). Brief CBT protected against relapse and significantly reduced time spent in hospital for those who did relapse (CBT mean 50 days (SD = 53.94) vs TAU mean 71 days (SD = 65.99) and delayed time to rehospitalisation (OR, 1.837, 1.108, 3.04,  $p=0.018$ ). However it did not improve psychotic symptoms or occupational recovery, or have a durable effect on overall symptoms or depression at follow up. **Conclusions:** Cognitive behaviour therapy is an effective intervention for schizophrenia and is durable in the medium term. Mental health nurses can be trained in brief CBT for schizophrenia to supplement case management and family interventions.

#### **REFERENCES:**

1. Rathod, S., Kingdon, D., Smith, P., Turkington, D: Insight into schizophrenia: the effects of cognitive behavioral therapy on the components of insight and association with sociodemographics. *Schizophrenia Research* 2005; 74/2-3: 211-219.
2. Turkington, D., Kingdon, D., Turner, T: The effectiveness of a brief cognitive behavioural intervention in schizophrenia. *British Journal of Psychiatry* 2002; 180(6): 523-527.

No. 80

### **EFFICACY AND TOLERABILITY OF OLANZAPINE, QUETIAPINE, AND RISPERIDONE IN THE TREATMENT OF FIRST-EPISEDE PSYCHOSIS: A RANDOMIZED, DOUBLE-BLIND, 52-WEEK COMPARISON**

Joseph P. McEvoy, M.D. *Duke University, Box 3950 DUMC, JUH, Butner, NC, 27509*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should have knowledge of the effectiveness of olanzapine, quetiapine, and risperidone in the treatment of first-episode patients with psychosis based on the rates of all-cause treatment discontinuation, secondary efficacy measures, and safety and tolerability measures.

**SUMMARY:**

**Objective:** To evaluate the overall effectiveness of olanzapine, quetiapine, and risperidone in patients experiencing a first psychotic episode. **Method:** A 52-week, randomized, double-blind, multicenter study of first-episode patients with a DSM-IV diagnosis of schizophrenia, schizophreniform or schizoaffective disorder and psychotic symptoms that had persisted for 1 month to 5 years. Patients were randomized to olanzapine (2.5 to 20 mg/d), quetiapine (100 to 800 mg/d), or risperidone (0.5 to 4 mg/d) in a twice-daily dosing regimen. Clinicians were encouraged to lower the antipsychotic dose to relieve extrapyramidal symptoms (EPS). The primary outcome measure was the rate of all-cause treatment discontinuation up to 52 weeks. Secondary outcome measures included change from baseline in Positive and Negative Syndrome Scale (PANSS), Clinical Global Impression (CGI) Scale, and Calgary Depression Scale for Schizophrenia (CDSS) scores. Safety and tolerability assessments included elicited adverse events (AEs) and Simpson Angus Scale (SAS), Barnes Akathisia Rating Scale (BARS), and Abnormal Involuntary Movement Scale (AIMS) scores. All assessments were conducted at baseline and 12 and 52 weeks. Statistical analysis tested for non-inferiority in all-cause treatment discontinuation rates between quetiapine and olanzapine or risperidone based on a 20% non-inferiority margin. **Results:** Four hundred patients, with a mean age ( $\pm$ SD) of 24.5 ( $\pm$  5.8) years, were assigned to olanzapine (N=133), quetiapine (N=134), or risperidone (N=133) treatment. The majority of patients had a diagnosis of schizophrenia (57.8%). The mean modal prescribed daily doses for olanzapine, quetiapine, and risperidone were 11.7 mg, 506 mg, and 2.4 mg, respectively. At endpoint, the all-cause treatment discontinuation rates were similar (68.4%, 70.9%, and 71.4% for olanzapine, quetiapine, and risperidone, respectively) and did not exceed the 20% non-inferiority margin between treatments. All treatments showed reductions in mean PANSS total, CGI severity, CDSS total subscale scores at Week 52, with no significant differences between treatments. Common AEs in all groups were sleepiness and weight gain. At endpoint, 80%, 50%, and 57.6% of olanzapine-, quetiapine-, and risperidone-treated patients, respectively, had gained  $\geq$ 7% of their baseline weight (olanzapine versus quetiapine  $P=0.01$ ). EPS rating scale scores did not differ significantly between treatments, but significantly fewer quetiapine-treated patients received concomitant medications for parkinsonism or akathisia compared with olanzapine ( $P=0.02$ ). **Conclusions:** Olanzapine, quetiapine, and risperidone, at mean modal doses of 11.7 mg/d, 506 mg/d, and 2.4 mg/d, respectively, demonstrate similar rates of all-cause treatment discontinuation and produce similar improvements in psychopathology, but differ in their safety and tolerability profiles.

Funding for this research was provided by AstraZeneca.

**REFERENCES:**

1. Schooler N, et al. Risperidone and haloperidol in first-episode psychosis: a long-term randomized trial. *Am J Psychiatry* 2005; 162:947-953.
2. Lieberman JA, et al. Comparative efficacy and safety of atypical and conventional antipsychotic drugs in first-episode psychosis: a randomized, double-blind trial of olanzapine versus haloperidol. *Am J Psychiatry* 2003; 160:1396-1404.

**No. 81****QUETIAPINE FOR BIPOLAR DISORDER AND SCHIZOPHRENIA: APPROPRIATE DOSE FOR OPTIMAL RESPONSE**

Arthur L. Lazarus, M.D. *Astrazeneca Pharmaceuticals LP, 1800 Concord Pike, Wilmington, DE, 19850-5437*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to understand the appropriate doses and administration regimens of quetiapine for treating various patient populations with bipolar disorder and schizophrenia.

**SUMMARY:**

**Objective:** Rapid and safe control of symptoms is essential in the treatment of patients with bipolar disorder and schizophrenia. Such treatment is not only beneficial to the patient and caregiver, but can also prove to be economical, as early control of symptoms decreases the duration of hospitalization and allows for a faster return to normal functioning. Dosing ranges determined during registration studies may not accurately reflect the needs of patients in clinical practice, as there is evidence of use of higher doses. **Method:** Determining mean last-week doses in responders from quetiapine studies. **Results:** Despite the difficulty in determining an exact dose-response relationship from flexibly dosed studies, responder analyses in the quetiapine mania studies indicate a target dose of 600 mg/day. Although not licensed for bipolar depression, a recent study has shown that quetiapine is effective when used at fixed doses of 300 or 600 mg/day per day. **Conclusions:** Appropriate dosing and treatment regimens of quetiapine are critical to prevent inadequate responses, compliance problems, and relapses. This session will discuss appropriate dose escalation of quetiapine in order to achieve the target dose and optimal response in patients with bipolar disorder and schizophrenia.

Funding for this research was provided by AstraZeneca.

**REFERENCES:**

1. Citrome L, Jaffe A, Levine J. Dosing of second-generation antipsychotic medication in a state hospital system. *J Clin Psychopharmacol* 2005; 25:388-391.
2. Calabrese JR, et al. A randomized, double-blind, placebo-controlled trial of quetiapine in the treatment of bipolar I and II depression. *Am J Psychiatry* 2005; 162:1351-1360.

**SCIENTIFIC AND CLINICAL REPORT SESSION 28—RECENT RESEARCH ON SSRIS****No. 82****EARLY SYMPTOMATIC WORSENING DURING TREATMENT WITH FLUOXETINE IN MDD: A REPLICATION STUDY**

Cristina Cusin, M.D. *Massachusetts General Hospital - Harvard Medical School, Psychiatry, 50 Staniford St, 401, Boston, MA, 02114*, Roy H. Perlis, M.D., Jonathan E. Alpert, M.D., Patrick J. McGrath, M.D., Jonathan W. Stewart, M.D., Frederick M. Quitkin, M.D., Maurizio Fava, M.D.

**EDUCATIONAL OBJECTIVES:**

A subset of patients with major depression (MDD) may report a worsening of mood during antidepressant treatment. Few studies have investigated possible links between early worsening and outcome of antidepressant treatment.

At the conclusion of this presentation the participant should recognize the relevance of a worsening of depression during acute phase treatment.

The possible relationship between early worsening and drug-related side effects will be analyzed, as well as clinical approaches to early symptomatologic worsening.

#### SUMMARY:

**Objective:** A subset of patients experience worsening of depressed mood after beginning antidepressant treatment, which could represent the natural history of the illness or a treatment-related effect. Our preliminary results indicated that early symptomatologic worsening occurs in about one third of patients and is associated with a lower probability of response. **Method:** We investigated the clinical correlates of early worsening in a sample of Major Depressive outpatients (N = 627), treated open-label with fluoxetine (mean dosage at week 12, 51.5mg±11.3). We defined "early worsening" as an increase of at least 5 points on the Hamilton Depression Rating Scale-28 (HAM-D) compared to the previous visit. Comparison of remission and response at week 12 between those with and without worsening was the main outcome. **Results:** In our sample, 205 (32.7%) patients experienced a worsening of depression between week 2 and 6. This worsening was associated with a significantly lower probability of remission (Chisq=13.87, p<.001) and response (Chisq=6.34, p=.008) at week 12. Baseline clinical features, including gender, age, baseline HAM-D score, number of previous depressive episodes and duration of illness were not associated with the development of early worsening. **Conclusions:** Early clinical worsening during antidepressant treatment is common and associated with a decreased likelihood of achieving remission.

#### REFERENCES:

1. Cusin C, Perlis RH, Amsterdam JD, Quitkin F, Reimherr FW, Zajecka J, Beasley CMJ, Fava M: Early symptomatic worsening during treatment with fluoxetine in Major Depression: prevalence and implications, in NCDEU. Boca Raton, FL, 2005.
2. Stewart JW, Quitkin FM, McGrath PJ, Amsterdam J, Fava M, Fawcett J, Reimherr F, Rosenbaum J, Beasley C, Roback P: Use of pattern analysis to predict differential relapse of remitted patients with major depression during 1 year of treatment with fluox.

#### No. 83

### META-ANALYSIS OF EFFICACY OF PAROXETINE VERSUS PLACEBO UTILIZING THE GLAXOSMITHKLINE CLINICAL TRIALS REGISTRY

Lawrence W. Adler, M.D. *Clinical Insights, Clinical Trials, 7310-Ritchie Highway #512, Glen Burnie, MD, 21061-5555*, Lorri Cerro, Ph.D., Henri Zepp, R.N.C.

#### EDUCATIONAL OBJECTIVES:

At the end of this presentation, the participant should be able to: (1) access the GlaxoSmithKline Paroxetine Clinical Trials Registry via the internet; (2) demonstrate awareness of the contradictory results of the placebo-controlled trials in adult major depressive disorder (MDD) listed on the Registry; (3) have knowledge of the results of a meta-analysis of these trials demonstrating superiority of paroxetine over placebo; and (4) understand the number of patients needed to treat (NNT) to have a patient to respond to paroxetine rather than placebo.

#### SUMMARY:

**Objective:** Clinical trials which fail to demonstrate superiority of active drug over placebo are often not published due to 'publication bias'. GlaxoSmithKline (GSK) has listed results of its clinical trials on a Clinical Trial Registry found on the corporate website. This listing permits review of the paroxetine clinical trials for Major

Depressive Disorder (MDD), and allows for conduct of a meta-analysis of these trials to determine if paroxetine is superior to placebo, and for determination of the number of patients needed to treat (NNT) to have a patient respond to paroxetine who would not have responded to placebo. **Method:** All placebo-controlled paroxetine trials for adult MDD listed on the GSK Clinical Trial Registry were reviewed. Only those trials which provided data on response (as defined by a 50% reduction in Hamilton Depression Rating Scale [HDRS] or Montgomery-Asburg Depression Rating Scale [MADRS]) or remission rates (as defined by HDRS<8) were included in this analysis. Odds ratio (OR) of response and 95% confidence limits (95% CL) were calculated as statistical measure of paroxetine's efficacy relative to placebo. Percent response to drug and placebo were used to calculate NNT. **Results:** Twenty-one placebo-controlled paroxetine trials in adult MDD were listed in the registry. Nine of these trials, involving 2,345 subjects with MDD, provided sufficient data for inclusion in the meta-analysis. Although paroxetine was numerically superior to placebo in all 9 trials, that superiority achieved statistical significance (95% CL exclude OR=1) in only 3 trials. When results of these trials were pooled, paroxetine demonstrated superiority to placebo (OR=1.57; 95% CL= 1.31-1.88). Response rates were 39.4% for placebo, and 50.5% for paroxetine, yielding NNT = 9. **Conclusions:** The GSK clinical trial registry include 9 trials in MDD with sufficient data for inclusion in this meta-analysis; in 3 of these trials paroxetine demonstrated statistical superiority to placebo.

Paroxetine demonstrated superiority to placebo in the meta-analysis of these trials.

However, the magnitude of this superiority was at best modest, with NNT=9.

The clinical trials registry provides useful data on clinical trials which have not been published.

#### REFERENCES:

1. Nemeroff CB: Advancing the treatment of mood and anxiety disorders: the first 10 years' experience with paroxetine. *Psychopharmacol Bull* 2003. Spring; 37 suppl 1:6-7.
2. Frantz S: Calls for full disclosure of clinical trials. *Nat Rev Drug Discov* 2001; 3(8): 635-6.

#### No. 84

### RESOLUTION OF SLEEPINESS AND FATIGUE IN THE TREATMENT OF MDD: A COMPARISON OF BUPROPION AND SSRIS

George I. Papakostas, M.D. *Massachusetts General Hospital, Psychiatry, 15 Parkman Street, WACC 812, Boston, MA, 02114*, Rafe M. Donahue, Ph.D., Andrew A. Nierenberg, M.D., David J. Nutt, M.D., Maurizio Fava, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, participants should be able to recognize the potential advantages of treating MDD with antidepressants which also possess noradrenergic and/or dopaminergic activity with respect to the resolution of sleepiness and fatigue.

#### SUMMARY:

**Objective:** Although the biologic basis of excessive sleepiness and fatigue in patients with Major Depressive Disorder (MDD) has not been fully elucidated, a number of studies suggest that the neurotransmitters dopamine and norepinephrine play a key role in the pathophysiology of these symptoms. However, to date, it is unclear whether the treatment of MDD with antidepressants which also possess noradrenergic and/or dopaminergic activity can result in a greater resolution of sleepiness and fatigue than the selective serotonin reuptake inhibitors (SSRIs). **Method:** Data from all double-blind, randomized clinical trials conducted to date comparing

the norepinephrine-dopamine reuptake inhibitor (NDRI) bupropion with an SSRI for the treatment of MDD were pooled. Hypersomnia scores were defined as the sum of scores of HDRS items #22, 23 and 24. Fatigue scores were defined as the score of HDRS item #13. Remission was defined as an HDRS-17 score equal to or less than 7 at endpoint. Resolution of a symptom was defined as an endpoint score of 0, while residual symptomatology was defined as an endpoint score >0. Cochran-Mantel-Haenszel tests for the change in each symptom (hypersomnia, fatigue) adjusting for the baseline level of severity of that symptom were conducted to compare the degree of improvement of symptom scores among groups. Results: 6 double-blind studies involving a total of 662 patients randomized to bupropion, 655 to SSRIs, and 489 to placebo were included in the pooled analysis. There was a greater improvement in hypersomnia scores among bupropion- than SSRI- ( $p < 0.0001$ ) or placebo-treated patients ( $p = 0.0008$ ). There was no statistically significant difference in the degree of improvement of hypersomnia scores between SSRI- and placebo-treated patients ( $p = 0.8320$ ). Similarly, there was a greater improvement in fatigue scores among bupropion- ( $p < 0.0001$ ) and SSRI- ( $p = 0.0004$ ), than placebo-treated patients as well as a greater improvement in fatigue scores among bupropion- than SSRI- treated patients ( $p = 0.0088$ ). Fewer bupropion-remitters experienced residual hypersomnia (19.9%) than SSRI-remitters (32.0%) ( $p = 0.005$ ), and fewer bupropion-remitters experienced residual fatigue (19.4%) than SSRI-remitters (30.2%) ( $p = 0.0004$ ). Conclusions: Treatment of MDD with bupropion resulted in a greater resolution of sleepiness and fatigue than SSRIs treatment. Less than one in five bupropion-remitters compared to nearly one-third of SSRI-remitters experienced residual sleepiness and fatigue at endpoint.

#### REFERENCES:

1. Stahl SM, Zhang L, Dematarca C, Grady M. Brain circuits determine destiny in depression: a novel approach to the psychopharmacology of wakefulness, fatigue, and executive dysfunction in major depressive disorder. *J Clin Psychiatry*. 2003;64 Suppl 14:6.
2. Papakostas GI, Petersen TJ, Burns AM, Fava M. Adjunctive Atomoxetine for Residual Fatigue in Major Depressive Disorder. In Press. *J Psych Research*.

## SCIENTIFIC AND CLINICAL REPORT SESSION 29—EPIDEMIOLOGICAL STUDIES OF ADVERSE EVENTS IN INSTITUTIONALIZED POPULATIONS

No. 85

### DEATH BY UNNATURAL CAUSES DURING CHILDHOOD AND EARLY ADULTHOOD IN OFFSPRING OF PSYCHIATRIC INPATIENTS

Roger T. Webb, M.S.C. *University of Manchester, Centre for Women's Mental Health Research, Oxford Road, 7th Floor, Williamson Building, Manchester, M13 9PL, United Kingdom*, Kathryn M. Abel, Ph.D., Louis Appleby, M.D., Preben B. Mortensen, Dr. Med. Sc., Sarah A. King-Hele, M.S.C., Andrew R. Pickles, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be aware that:

- 1) Offspring of people admitted for psychiatric treatment are more likely to die prematurely from unnatural causes during early childhood, the school attendance years and young adulthood.
- 2) Especially high relative risks of child homicide are indicated in early and later childhood, and these excess risks are associated with disorder in either parent.
- 3) Up to a third of all child homicides that occur in the population may be attributable to effects associated with severe parental psycho-

pathology, although these large estimates of population impact derived from Denmark may not be applicable elsewhere.

4) Young adults with mentally ill parents are apparently not at higher risk of becoming homicide victims. However, these youths are more likely to die by suicide or by undetermined unnatural causes. A six-fold higher risk of suicide is indicated among young adults with two parents admitted for psychiatric treatment.

5) The Danish registers provide a valuable epidemiologic resource for investigating such rare outcomes at population-level. However, the perpetrators of child homicide were unidentifiable in the study data set, and thus we can make only limited inferences concerning the observed associations with parental disorder.

#### SUMMARY:

**Objective:** We investigated cause-specific mortality risks among children and young adults whose parents had been psychiatric inpatients. The focus of our study was death due to unnatural causes among these offspring at ages 1-25 years. **Method:** All singleton Danish births during 1973-1997 were linked to a national psychiatric register to identify all parental admissions prior to offspring death, with follow-up to January 1999. Relative risks versus the general population were estimated using Poisson regression models. These were stratified by offspring age: 1-4 (pre-school), 5-15 (school-age), 16-25 years (young adults). A total of  $N = 1,384,042$  children were initially eligible for follow-up at age 1 year; the sample size at age 16 years was  $N = 570,312$ . **Results:** Higher rates of unnatural-cause mortality were found among children and young adults with an affected parent. The highest relative risks, of between five and nine, were for child homicide. These strong associations were observed in the presence of disorder in either parent. Attributable fractions indicated that around a quarter of all homicides at pre-school age and a third of those during school-age years may be attributable to effects associated with parental disorder. Perpetrators of these crimes were unidentifiable in the data currently available to us. There was no evidence of elevated risk of homicide among young adults with a mentally ill parent, but this group was at higher risk of suicide and death from undetermined unnatural causes. Young people with two affected parents were around six times more likely to kill themselves than their peers in the general population. **Conclusions:** Virtually all of these children survive to reach maturity. However, for as yet unknown reasons, they are more vulnerable to death by unnatural causes, especially homicide during childhood, and suicide and death by undetermined causes in early adulthood. Future research should elucidate precisely how parental disorder contributes to increased risk of premature death, and investigate mortality outcomes among these people throughout their adult lives.

#### REFERENCES:

1. Webb R, Abel K, Pickles A, Appleby L: Mortality in offspring of parents with psychotic disorders: a critical review and meta-analysis. *Am J Psychiatry* 2005; 162: 1045-1056.
2. Erlenmeyer-Kimling L: Mortality rates in the offspring of schizophrenic parents and a physiological advantage hypothesis. *Nature* 1968; 220: 798-800.

No. 86

### THE INCIDENCE AND PREVALENCE OF DIABETES MELLITUS AMONG INPATIENTS IN STATE-OPERATED PSYCHIATRIC HOSPITALS IN NEW YORK STATE 1997-2004

Leslie L. Citrome, M.D. *Nathan S Kline Institute for Psychiatric Research, 140 Old Orangeburg Road, Orangeburg, NY, 10962*, Ari B. Jaffe, M.D., Jerome M. Levine, M.D., David Martello

**EDUCATIONAL OBJECTIVES:**

1. To recognize that the incidence and prevalence of diabetes mellitus has increased two-fold among psychiatric inpatients hospitalized within the facilities operated by the New York State Office of Mental Health during the period 1997 through 2004.

2. To recognize that the rise in prevalence of diabetes mellitus among psychiatric inpatients mirrors the rise observed in the general population, but with higher absolute rates.

**SUMMARY:**

**Objective:** To describe the incidence and prevalence of diabetes mellitus over the period 1997 to 2004 among inpatients in a large state psychiatric hospital system. **Method:** Prevalence of diabetes mellitus was determined by ascertaining the number of individuals receiving antidiabetic medication and/or having an ICD-9 diagnosis of diabetes mellitus for each calendar year, using a database containing diagnostic and drug prescription information from the inpatient facilities operated by the New York State Office of Mental Health. Yearly incidence was calculated by identifying unique patients who received new prescriptions of antidiabetic medication among patients with no known prior history of receiving an antidiabetic medication nor having a recorded diagnosis of diabetes mellitus. Data was categorized by calendar year, gender, age, gender/age, ethnicity, and psychiatric diagnosis, and relative risk ratios were calculated. **Results:** Prevalence of diabetes mellitus among inpatients in the state psychiatric hospital system in New York increased from 6.9% of 10,091 patients in 1997 to 14.5% of 7,420 patients in 2004 (risk ratio comparing 2004 to 1997 2.11, 95% confidence interval 1.93-2.31). The incidence of diabetes mellitus increased from 0.9% in 1997 to 1.8% in 2004 (risk ratio of 2.03 (1.51-2.73)). Prevalence rates were higher for this population compared to samples of the New York State general population as measured by the Behavioral Risk Factor Surveillance System. **Conclusions:** The rise in prevalence of diabetes mellitus among psychiatric inpatients mirrors the rise observed in the general population, but with higher absolute rates. The relatively high yearly incidence rate of 1.8% underscores the need to address this major public health problem.

**REFERENCES:**

1. Dixon L, Weiden P, Delahanty J, et al. Prevalence and correlates of diabetes in national schizophrenia samples. *Schizophr Bull.* 2000;26:903-912, 2000.
2. Mokdad AH, Ford ES, Bowman BA, et al. Diabetes trends in the U.S.: 1990-1998. *Diabetes Care.* 2000;23:1278-1283.

No. 87

### **ASSOCIATIONS BETWEEN PSYCHIATRIC DISORDER AND COMMITMENT CRITERIA IN ACUTE INVOLUNTARILY ADMITTED PATIENTS IN THE NETHERLANDS**

Cornelis Mulder, M.D. *Erasmus MC, University Medical Center Rotterdam, Psychiatry, P.O. Box 245, Barendrecht, 2990 AE, The Netherlands*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant has insight into the specific associations between psychiatric disorders and type of danger in involuntary admitted patients.

**SUMMARY:**

**Objective:** To investigate the characteristics of involuntary admitted patients in the Netherlands and the associations between psychiatric disorders and commitment criteria. **Method:** The 'Exceptional Admission to Psychiatric Hospitals Act' in The Netherlands stipulates that a patient may be committed if he or she is suffering from a psychiatric disorder that creates a form of danger. Assessing the

risk is the primary task of the psychiatrist who has examined the patient. Commitment criteria in The Netherlands include danger to self, to others, or grave negligence. Need for treatment is not a criterion for commitment in the Netherlands. The danger to self criterion includes suicide risk and the danger that the person involved will arouse aggression from others due to his or her irritating behaviour. The danger to others criterion includes threatening or using violence towards others, or being a general threat towards public safety or goods. The negligence criterion includes grave disability and severe social breakdown: e.g. manic patients spending money, and causing severe interpersonal problems. Information on involuntary admission was obtained from the Dutch Register for Involuntary Commitment. The register contains information on all involuntary admissions in the Netherlands. For the present study we selected the period 2000 - 2004. The data were used anonymously, and ethical approval of the study was not needed. **Results:** During the period 2000 - 2004, 34778 involuntary admissions were registered (54% men). Psychotic disorder was registered in 52% of all patients, followed by mania (19%), depressive disorder (10%), personality disorder (6%) and substance abuse disorder (6%). Suicide risk was registered in 38% of the patients, violence towards others in 26%, general danger to persons or materials in 10%, and grave disability in 9%.

Within the group of patients with psychotic disorders or mania, violence towards others was the most prevalent commitment criterion (in 33% and 24% of these patients, respectively). In patients with depressive disorders, personality disorders and substance abuse, suicide risk was the most prevalent reason for commitment (87%, 82%, and 41%, respectively).

In boys (12-18 years), psychotic disorders (51%), were most prevalent. Girls, however, were mostly admitted having a depressive disorder (29%). 55% of the children were committed due to suicide risk. Suicide risk as a commitment criterion decreased with age, whereas grave disability increased with age (from 55% and 4% in children, to 28% and 35% in the elderly, respectively). Overall, grave disability was more prevalent in women than in men (13 and 8%, respectively). Violence towards others as a commitment criterion was most prevalent in men aged 18-44 years (38% of these men were committed due to this criterion). **Conclusions:** Patients who are involuntarily admitted show a distinct pattern of diagnoses and commitment criteria, associated with age and gender. Knowledge of these patterns is important for (1) comparing regions (countries or states) on the use of involuntary admissions and commitment criteria, (2) developing evidence based guidelines for the use of coercion in psychiatry, and (3) developing interventions targeted at specific populations for preventing involuntary admission.

**REFERENCES:**

1. Mulder CL, Koopmans GT, Lyons JL. Determinants of indicated versus actual level of care in psychiatric emergency services. *Psychiatric Serv* 2005; 56:452-457.
2. Mulder CL. Variations in involuntary commitment in the European Union. *Brit J Psychiatry* 2005; 187:91-92.

### **SCIENTIFIC AND CLINICAL REPORT SESSION 30—TREATMENT OF ADVERSE EVENTS**

No. 88

### **PDE5I SILDENAFIL TREATMENT OF SEROTONERGIC ANTIDEPRESSANT ASSOCIATED SEXUAL DYSFUNCTION (SRI-AASD) IN WOMEN WITH MDD IN REMISSION: AN EIGHT-WEEK RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED TRIAL WITH EIGHT-WEEK OPEN-LABEL CONTINUATION**

H. George Numberg, M.D. *University of New Mexico, Department of Psychiatry, 2400 Tucker NE, MSC 095030, Albuquerque, NM,*

87131, Paula L. Hensley, M.D., Maurizio Fava, M.D., Harry A. Croft, M.D., Julia R. Heiman, Ph.D., Matthew A. Menza, M.D., Julia K. Warnock, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, participants should be able to recognize that women with sexual dysfunction associated with serotonin reuptake inhibitor antidepressant treatment have improved sexual function and depression severity after treatment with sildenafil citrate. The improvements observed in women are similar to those observed in men with erectile dysfunction associated with SRI antidepressant treatment for depression. Furthermore, participants should understand that the hormonal milieu may play a role in the response to sildenafil.

#### SUMMARY:

**Objective:** This prospective double-blind, placebo-controlled (DBPC) study, assessed the efficacy of sildenafil in women with serotonin reuptake inhibitor antidepressant-associated sexual dysfunction (SRI-AASD) following the same protocol which previously established efficacy in men with SRI-AASD. **Method:** Women (n=100) with MDD-remission and SRI-AASD were randomized to receive sildenafil (50-100mg) or placebo for 8 weeks, followed by 8-weeks open-label extension. Sexual function was assessed using the Clinical Global Impression-Sexual Function (CGI-SF); a positive response to treatment was defined as a score <3. Other sexual function questionnaires were the UNM-SFI, ASEX, and SFQ-FSD. Depression was monitored using the HAM-D17. Hypothalamic, pituitary, adrenal, and gonadal hormones were measured at baseline and DB-endpoint. **Results:** Among the women (age=36.8±7.1 y, antidepressant-therapy=27.6±34.7 mos), significantly more sildenafil-treated (69%) vs placebo-treated (29%) patients had a CGI-SF <3 indicating a positive response (P<0.001). Although not statistically significant, arousal, orgasm, and overall satisfaction also improved more in sildenafil-treated vs placebo-treated women. Depression remained in remission in both groups (HAM-D17=4.1±0.36). Significantly higher free-testosterone and thyroxine characterized treatment responders. **Conclusions:** This first DBPC sildenafil trial in women with SRI-AASD extends prior work that established sildenafil efficacy for treatment of SRI-AASD in men. Considering the 2- to 3-fold greater prevalence of women treated with SRIs, these results suggest sildenafil may effectively manage SRI-AASD and support antidepressant treatment adherence in both genders.

#### REFERENCES:

1. Nurnberg HG, Hensley PL, Gelenberg AJ, Fava M, Lauriello J, Paine S. Treatment of antidepressant-associated sexual dysfunction with sildenafil: a randomized controlled trial. *JAMA* 2003; 289:56-64.
2. Nurnberg HG, Seidman SN, Gelenberg AJ, Fava M, Rosen R, Shabsigh R. Depression, antidepressant therapies, and erectile dysfunction: clinical trials of sildenafil citrate (Viagra®). *Urology* 2002; 60(Suppl 2B):58-66.

No. 89

#### **THEORETICAL IMPLICATIONS OF IMPROVED DEPRESSION SEVERITY BY PDE5I SILDENAFIL TREATMENT OF ERECTILE DYSFUNCTION ASSOCIATED WITH TREATED OR UNTREATED MDD FOR ENDOTHELIAL DYSFUNCTION MEDIATION**

Richard L. Siegel, M.D. *Pfizer Inc, Sexual Health Team, 235 East 42nd Street, 235/4/1, New York, NY, 10017, H. George Nurnberg, M.D.*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, participants should be able to recognize that patients with erectile dysfunction (ED) associated with depression with or without antidepressant treatment have improved erectile function and depression severity after treatment with sildenafil citrate. Improvement in endothelial function may underlie the improvement in erectile function and depression scores. Whether treated with placebo or sildenafil, a response to ED treatment is associated with improvement in depression severity.

#### SUMMARY:

**Objective:** To determine if effective phosphodiesterase 5 inhibitor (PDE5I) sildenafil citrate treatment of erectile dysfunction (ED), which can have many causes, including depression, medication treatment, and other medical conditions, mediated through underlying endothelial dysfunction, is associated with improvements in concurrent depression symptom severity. **Method:** A MedLine search revealed 6 double-blind placebo-controlled studies of sildenafil treatment for ED which also assessed depression in study subjects using standardized measures (HAM-D, MADRS, CES-D). PDE5I-sildenafil treatment demonstrated improved erectile function and modest to significant improvements in depression symptom severity in men with ED associated with minor depression (Seidman, 2001), serotonin reuptake inhibitor-antidepressant associated sexual dysfunction (Nurnberg, 2001 and 2003), residual ED following depression remission (Tignol, 2004), serotonergic antidepressant treatment ED (Fava, 2004), and chronic ED and depression with congestive heart failure (Webster, 2004). Two other studies revealed significantly improved erectile function and depressive symptoms after treatment with other PDE5I therapy in men with ED and mild untreated major depressive disorder (Rosen, 2004), and in men with ED and depressive symptoms following prostatectomy (Brock, 2004). **Results:** These reports suggest that when PDE5I treatment of ED was effective, the associated mean change in symptomatic depression severity improved from 5% to 50% over baseline when compared with patients treated with placebo. However, a positive response of ED to treatment when compared with non-response to treatment, whether treated by placebo or sildenafil, resulted in improvements in depression symptom severity of 17% to 65%. **Conclusions:** While an antidepressant action of PDE5I sildenafil has not been demonstrated, improvement of ED, whether by sildenafil or placebo, appears to be more directly associated with improvement in depression symptom severity. That further suggests improvement in endothelial dysfunction may mediate reduced depression symptom severity, and support persisting antidepressant medication adherence, and MDD-remission. Further prospective study of endothelial dysfunction relationships to ED and depression are needed.

#### REFERENCES:

1. Nurnberg HG, Hensley PL, Gelenberg AJ, Fava M, Lauriello J, Paine S. Treatment of antidepressant-associated sexual dysfunction with sildenafil: a randomized controlled trial. *JAMA* 2003; 289:56-64.
2. Nurnberg HG, Seidman SN, Gelenberg AJ, Fava M, Rosen R, Shabsigh R. Depression, antidepressant therapies, and erectile dysfunction: clinical trials of sildenafil citrate (Viagra®). *Urology* 2002; 60(Suppl 2B):58-66.

No. 90

#### **EFFICACY OF SILDENAFIL FOR THE TREATMENT OF ERECTILE DYSFUNCTION IN MEN TAKING ANTIDEPRESSANT MEDICATION: META-ANALYSIS OF RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDIES**

Joseph C. Cappelleri, Ph.D. *Pfizer Inc, Global Research and Development, Eastern Point Road, Groton, CT, 06340-8030, H. George*

Nurnberg, M.D., Li-Jung Tseng, Ph.D., Claude Tellier, B.S., Richard L. Siegel, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, participants should be able to recognize that patients with erectile dysfunction (ED), either related to or independent of receiving serotonergic antidepressants related to depression treatment, have improved erectile function and depression severity after treatment with sildenafil. A standardized effect size of 1.0 can be expected after successful treatment of ED with sildenafil.

#### SUMMARY:

**Objective:** An initial randomized, double-blind, placebo-controlled (DBPC) study indicated substantial efficacy with sildenafil for men with erectile dysfunction (ED) who took serotonin reuptake inhibitors (SRI) antidepressants (ED-SRI). We systematically evaluated and benchmarked the efficacy of sildenafil treatment in men with ED taking SRI antidepressants. **Method:** We reviewed the literature (Current Contents, EMBASE, Cochrane database, HealthSTAR, MEDLINE), conference presentations, and communicated with experts and pharmaceutical sponsors of DBPC trials from 1997 to 2004 that involved the efficacy of sildenafil in men for the treatment of ED accompanied by primary or secondary depression disorders (remitted, symptomatic) caused, exacerbated, or incidental to serotonergic-antidepressant treatment. The erectile function (EF) domain of the International Index of Erectile Function (range 1-30) was the response variable. Data extraction of each study included study design, diagnosis, numbers randomized, dosing, inclusion criteria, treatment duration, and EF domain scores. The results were compared with the initial ED-SRI study and, with the 10 original DBPC sildenafil studies in which the subgroup of men with ED treated concomitantly with SRI antidepressants were excluded. **Results:** Three studies (n=435) on men with ED and depression were obtained. All data were obtained by the manufacturer of sildenafil (Pfizer) and the meta-analysis was based on individual patient data. Treatment differences were analyzed using fixed and random effects models. Results from the random effect models showed that, compared with placebo, sildenafil treatment significantly and substantially improved erectile function by 7.79 (SE=1.38;  $P=0.03$ ) in the three SRI studies and by 8.44 (SE=1.08;  $P<0.0001$ ) in the 10 original studies (n=3029, excluding men who took SRI antidepressants) Standardized effect sizes (treatment difference / pooled SD of treatment difference) were 1.0 and 1.08, respectively. Results from the fixed effects model were very similar. **Conclusions:** The efficacy of sildenafil for the treatment of men with ED who are concomitantly taking SRI antidepressants was high, robust, and associated with further improvement in depression severity. In addition, it was similar to sildenafil efficacy in the reference ED-SRI study and in studies that excluded men taking SRI depressants. Meta-analyses can provide valid and precise effects of treatment across ED subgroups and, by extension, among phosphodiesterase 5 inhibitor (PDE5I) agents as well.

#### REFERENCES:

1. Nurnberg HG, Hensley PL, Gelenberg AJ, Fava M, Lauriello J, Paine S. Treatment of antidepressant-associated sexual dysfunction with sildenafil: a randomized controlled trial. *JAMA* 2003; 289:56-64.
2. Nurnberg HG, Seidman SN, Gelenberg AJ, Fava M, Rosen R, Shabsigh R. Depression, antidepressant therapies, and erectile dysfunction: clinical trials of sildenafil citrate (Viagra®). *Urology* 2002; 60(Suppl 2B):58-66.

## SCIENTIFIC AND CLINICAL REPORT SESSION 31—BPD

No. 91

### STRUCTURAL BRAIN ABNORMALITIES IN BPD

Paul H. Soloff, M.D. *University of Pittsburgh/WPIC, Psychiatry, 3811 O'Hara Street, Pittsburgh, PA, 15213-2593, Jeffrey Nutche, B.S., Vaibhav Diwadkar, Ph.D.*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to appreciate the extent of structural brain abnormalities in patients with BPD, their relationship to childhood sexual abuse, and proposed role in the regulation of affect and impulse.

#### SUMMARY:

**Objective:** We used Voxel Based Morphometry (VBM) to sample the entire brain for changes in grey matter concentrations in BPD compared to healthy control subjects (HC), and abused compared to non-abused BPD women. Our studies supplement time-intensive, region-of-interest morphometric analyses which demonstrate diminished volumes in the medial temporal lobe, especially in women with histories of childhood abuse. They complement functional PET studies that sample the entire brain and demonstrate relative hypometabolism, especially in areas of prefrontal cortex (PFC) and cingulate. **Method:** 34 BPD subjects (22F, 12M), diagnosed by DIB-R and IPDE, were compared to 30 HC (19F, 11M). Structured interviews were used to characterize comorbidity on Axis I (SCID), Axis II (IPDE), and childhood histories of abuse. All subjects were free of psychoactive medication and drugs of abuse. Healthy controls had no Axis I or Axis II diagnoses. Analyses were conducted on T<sub>1</sub>-weighted structural MRI images using optimized VBM. Results were thresholded ( $p<.001$ , extent=125 voxels) to identify significant clusters. **Results:** BPD subjects had significant reductions in ventromedial prefrontal cortex (PFC), and the medial temporal lobe (parahippocampus/ uncus/ amygdala). BPD women (compared to HC), and abused BPD women (compared to non-abused BPD), had significant reductions in medial temporal lobe. **Conclusions:** Diminished grey matter in PFC and medial temporal cortex may mediate dysregulation of impulse and affect in BPD. Childhood sexual abuse may result in diminished grey matter in medial temporal lobe, contributing a neurobiologic basis to aspects of psychopathology in BPD.

Supported by NIMH Grant # MH 48463.

#### REFERENCES:

1. Driessen M, Herrmann J, Stahl K, et.al. Magnetic resonance imaging volumes of the hippocampus and the amygdala in women with borderline personality disorder and early traumatization. *Arch.Gen.Psychiatry* 2000;57;1115-1122.
2. Soloff PH, Meltzer CC, Becker C, et.al. Impulsivity and prefrontal hypometabolism in borderline personality disorder. *Psychiatry Research: Neuroimaging* 2003;123;153-163.

No. 92

### NEUROBIOLOGICAL CORRELATES OF DIAGNOSIS AND UNDERLYING TRAITS IN PATIENTS WITH BPD COMPARED WITH NORMAL CONTROLS

Joel F. Paris, M.D. *SMBD Jewish General Hospital & McGill University, Psychiatry, 4333 Cote Ste-Catherine Road, Montreal, PQ, H3T 1E4, Canada, Hallie Zweig-Frank, Ph.D., Mien-Kwong Ng Ying Kin, Ph.D., George Schwartz, M.S., Howard Steiger, Ph.D., Vasavan N. Nair, M.D.*

## EDUCATIONAL OBJECTIVES:

To present research on neuroendocrine abnormalities in BPD

## SUMMARY:

Objective: To test the hypothesis that borderline personality disorder (BPD) and its underlying traits are associated with abnormalities in neurotransmitter systems. Method: Subjects were 30 women with BPD and 22 normal controls, assessed using the Diagnostic Interview for Borderlines, Revised, the Hamilton Depression Scale (HAM-D), the Hamilton Anxiety Scale (HAM-A), the Diagnostic Assessment of Personality Pathology, the Buss-Durkee Guilt Hostility Inventory, the Barratt Impulsivity Scale (BIS) and challenge tests to measure serotonergic, cholinergic and noradrenergic activity. Results: Borderline subjects with high HAM-A and HAM-D scores showed a faster time to peak in prolactin response to meta-chlorophenylpiperazine (m-cpp) challenge. Borderline subjects with high BIS scores showed prolactin blunting. There were no differences in cortisol response to m-cpp, or on the cholinergic and noradrenergic challenges. Trauma histories had no effect on the results. Conclusions: These results suggest that impulsive traits in borderline patients are associated with abnormalities in serotonergic systems.

## REFERENCES:

1. Coccaro EF, Siever LJ, Klar H, Maurer G: Serotonergic studies in patients with affective and personality disorders. *Arch Gen Psych* 1989; 46:587-599.
2. Soloff PH, Malone KM, Mann JJ: Serotonin and impulsive-aggression in major depression and Cluster B personality disorders. *Neuropsychopharma* 1994; 10:827S.

## No. 93

**BPD AND SUICIDE ATTEMPT: ARE THERE ANY CORRELATES BETWEEN ATTEMPTERS AND NON-ATTEMPTERS?**

Tavi Thongdy, M.D. *Brown University/Rhode Island Hospital, Psychiatry, 29 Arthur Ave., 16, East Providence, RI, 02914*, Mark Zimmerman, M.D., Joseph McGlinchey, Ph.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to better understand the frequency and correlates of suicide attempt in patients with Borderline Personality Disorder.

## SUMMARY:

## Objective:

Few studies have examined the correlates of suicidal behavior in patients with borderline personality disorder (BPD). These studies have primarily looked at factors such as demographics and comorbidity. In the present report from the Rhode Island Methods to Improving Diagnostic Assessment and Services (MIDAS) project, we attempt to replicate and extend the findings of other authors by adding a wider range of Axis I and Axis II disorders to the list of possible risk factors of suicidal behavior in patients with BPD. Method:

A sample of 2,300 outpatients was evaluated with the Structured Clinical Interview for DSM-IV (SCID) supplemented by the Structured Interview for DSM-IV Personality (SIDP-IV). We identified BPD patients and compared the patients who did and did not have a history of suicide attempts on demographics and clinical variables. Results:

Of this sample, 236 patients were diagnosed with BPD. One hundred twenty-nine patients (54.7%) with BPD made a suicide attempt. There were no statistically significant differences between attempters and non-attempters on age, gender, race, marital status, education, Axis I and Axis II comorbidity, characteristic criteria of BPD, or adolescent and current social functioning. Attempters more

often experienced work absence ( $p=0.001$ ) and a low GAF score ( $p=0.001$ ). Conclusions:

In general, there were few differences between borderline personality disorder patients who did and did not have a history of suicide attempt. Possible reasons for the differences between this study and other studies will be discussed.

## REFERENCES:

1. Brodsky BS, Malone KM, Ellis SP, Dulit RA, Mann JJ: Characteristics of Borderline Personality Disorder Associated With Suicidal Behavior. *American Journal of Psychiatry* 1997; 154:1715-1719.
2. Soloff PH, Lis JA, Kelly T, Cornelius J, Ulrich R: Risk factors for suicidal behavior in borderline personality disorder. *American Journal of Psychiatry* 1994; 151:1316-1323.

**SCIENTIFIC AND CLINICAL REPORT SESSION 32—WOMEN'S HEALTH ISSUES**

## No. 94

**GENDER DIFFERENCES IN SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS: A 20-YEAR FOLLOW-UP STUDY**

Linda S. Grossman, Ph.D. *University of Illinois at Chicago, Psychiatry, 912 South Wood Street, MC-913, Chicago, IL, 60612*, Martin Harrow, Ph.D., Cherise Rosen, Ph.D., Robert Faull, B.S.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will be better informed about gender differences in schizophrenia regarding the long-term (20 year) course of psychotic symptoms, anxiety, and recovery.

## SUMMARY:

Objective: Several studies have shown that women with schizophrenia have better clinical courses than men, but few have studied gender differences in other psychotic disorders. We prospectively followed-up a large sample of patients from the Chicago Follow-up Study, to provide longitudinal data about potential gender differences in posthospital functioning. Method: We assessed 125 patients, (69 with schizophrenia and 56 with other psychotic disorders). Patients were evaluated prospectively at index hospitalization and then followed-up six times over the next 20 years. They were assessed on standardized research instruments evaluating symptoms, psychosocial functioning, treatment, and global outcome. Results: 1) Female schizophrenia patients had significantly better overall outcomes, with more periods of recovery than men. 2) Female schizophrenia patients also had significantly more psychosis-free interims over the 20-year period. 3) Patterns of gender differences were not as strong or consistent for patients with other psychotic disorders. 4) For schizophrenia patients of both genders, and for women with other psychotic disorders, psychosis was significantly related to anxiety. Conclusions: The results emphasize that women with schizophrenia have a more favorable long-term course than their male counterparts. They showed more frequent periods of recovery and fewer psychotic symptoms. For patients with other psychotic disorders, women with other psychotic disorders show better courses and outcome than men, but the differences are not as robust in some areas.

## REFERENCES:

1. McGlashan TH, Bardenstein KK: Gender differences in affective, schizoaffective, and schizophrenic disorders. *Schizophr Bull* 1990; 16:319-329.
2. Goldstein JM: Gender differences in the course of schizophrenia. *Am J Psychiatry* 1988; 145:684-689.



No. 95

**SEVERE PERSONALITY DISORDERS IN THE OFFSPRING OF ANTENATALLY-DEPRESSED MOTHERS: A 31-YEAR FOLLOW-UP OF THE NORTHERN FINLAND 1966 BIRTH COHORT**

Pirjo H. Maki, M.D. *University of Oulu, Psychiatry, P O Box 5000, Peltolantie 5, Oulu, 90014, Finland*, Juha M. Veijola, M.D., Matti Joukamaa, M.D., Paula Rantakallio, M.D., Jari Jokelainen, M.S.C., Liisa Kantojarvi, M.D., Matti K. Isohanni, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to understand, that antenatal depression is common and that it may be a risk factor for severe personality disorders in the offspring.

**SUMMARY:**

**Objective:** Maternal depression is common during antenatal period. Prenatal depression has been connected to externalizing problems in children. We studied the association between mothers' antenatal depressed mood and severe personality disorders in their young adult offspring.

**Method:** At midgestation mothers of 12 058 babies in the Northern Finland 1966 Birth Cohort were asked at the antenatal clinic if they felt depressed. This general population birth cohort was followed up 31 years. Those offspring, who appeared on the Finnish Hospital Discharge Register between the years 1983-97, were identified. All psychiatric diagnoses were checked against DSM-III-R criteria. **Results:** Of the mothers of the offspring, 14 % felt depressed during pregnancy. The cumulative incidence of the hospital-treated personality disorders was 2.4 % in the male offspring of depressed mothers and 0.6 % in the sons of non-depressed mothers ( $p < 0.001$ ). The corresponding numbers for female offspring were 0.8 % and 0.3 % respectively ( $p < 0.05$ ). When adjusted, the risk was elevated for borderline personality disorders 10-foldly and for antisocial personality disorders 3-foldly in the male offspring of antenatally depressed mothers.

**Conclusions:** Mothers' self-reported depression during pregnancy predicted severe personality disorders in their offspring, especially hospital-treated borderline and antisocial personality disorders in men.

**Acknowledgements:** This work was supported by grants from the Signe and Ane Gyllenberg Foundation.

**REFERENCES:**

1. Rantakallio P: Groups at risk in low birth weight infants and perinatal mortality. *Acta Paediatr Scand* 1969; 193:1-71.
2. Mäki P: Parental separation at birth and maternal depressed mood in pregnancy - associations with schizophrenia and criminality in the offspring. *Acta Universitatis Ouluensis Medica D* 740, Oulu Univ. Press 2003. <http://herkules.oulu.fi/isbn9514270800>.

No. 96

**OUTCOME OF PRENATAL ANXIETY, STRESS, AND DEPRESSION**

Gisèle Apter-Danon, M.D. *Erasmé Hospital University Paris 7, 121 bis Avenue du Général Leclerc, Bourg-La-Reine, 92340, France*, Rozenn Graignic-Philippe, Ph.D., Emmanuel Devouche, Ph.D., Marina Gianoli-Valente, M.A., Annick Le Nestour, M.D.

**EDUCATIONAL OBJECTIVES:**

The aim of this talk is to show the links between prenatal and postnatal, stress, anxiety and depression.

At the end of this talk participants should be able to understand the importance of screening pregnant women for stress anxiety and depression.

Target audience: Psychiatrists, Mental health clinicians working with women and children, researchers

**SUMMARY:**

**Objective:** Abundant literature exists on prenatal stress and anxiety. Stressful life events are known to impact birthweight, gestational age and to foster obstetrical complications. Postnatal depression is a common complication of childbirth (10 to 12%) and a highly negative factor on infant development.

However prenatal depression has been far less studied even though recently it has been shown that it is a much more common condition than previously thought (Marcus, 2003).

We hypothesized that levels of depression would be highly correlated to levels of anxiety and perceived stress both pre and postnatally.

**Method:** 80 pregnant women from three different maternity wards of Parisian suburban area were recruited as part of an ongoing study on maternal mental health and infant development. They were interviewed during their last month of pregnancy then at 3 and 6 months postnatally

Depression was assessed with both the Edinburg Postnatal Depression Scale (EPDS) with a cut-off score of over 10 and the Montgomery and Ashberg Rating Scale (MADRS) with a cut-off score of 15 or more.

Trait and State anxiety were assessed with the Spielberger self-questionnaire (STAI-A and B) and stress was evaluated with French version of the Perceived Stress Scale.

**Results:** Results showed high correlation between all assessment tools. Perceived stress was positively correlated to the Spielberger trait and anxiety and EPDS and MADRS prenatally, respectfully PSS-STAI-A: .45 ( $p < 0.05$ ), PSS-STAI-B : .67 ( $p < 0.001$ ), PSS-MADRS : .59 ( $p < 0.005$ ), PSS-EPDS : .59 ( $p < 0.0005$ ). This persists postnatally since SRAI and EPDS are positively correlated both at three and six months, respectfully EPDS-STAI-A .73 ( $p < 0.001$ ) and MADRS-STAI-A, .54 and .77 ( $p < 0.0005$  and .0001).

**Conclusions:** It seems of extreme importance when assessing emotional maternal state and mental health to look into all aspects of anxiety, stress and depression to correctly evaluate and therefore offer treatment to this high-risk group

**REFERENCES:**

1. Barbosa GA : The association of life events to gestational age at delivery among low-income, urban, African-american women. *J Perinatol* 2000;20:438-442.
2. Wadwha PD, sandman CA, Porto M, Dunkel-Schetter C, Garite TJ : The association between prenatal stress and infant birth weight and gestational age at birth : a prospective investigation. *Am J Obstet Gynecol* 1993; 169: 858-865.

**SCIENTIFIC AND CLINICAL REPORT SESSION 33—CROSS-CULTURAL AND MINORITY ISSUES**

No. 97

**ALL EQUAL? ADVOCATING EQUITY IN MENTAL HEALTH SERVICES IN FRANCE TO ETHNIC-MINORITY DISADVANTAGED YOUTH AND THEIR FAMILIES THROUGH THE EVIDENCE-BASED FACE® PROTOCOL**

Leon-Patrice Celestin, M.D. *Hospital Poissy-Saint-Germain-en-Laye, Psychiatry, 26 rue de la Folie Regnault, Paris, 75011, France*, Smadar Celestin-Westreich, Ph.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to: a) identify sources of stigma in mental health services to socio-economically disadvantaged youth in France, b) demonstrate insight into underlying societal and cultural factors hereto, c) recognize methods that contribute to advocating fair practices.

**SUMMARY:**

**Objective:** France's egalitarian societal discourse generally tends to restrain from a socio-ethnic focus in the analysis of mental health service provision. This paper aims to 1) identify presence and sources of stigma in mental health services to ethnic minority, socio-economically disadvantaged youth, 2) provide recommendations for advancing fair practices in the investigated socio-cultural context. **Method:** One trimester of youth referrals was systematically examined, with data being drawn from a mental health service serving a large, socio-culturally mixed Paris region. In the context of the multisite European FACE<sup>®</sup> programme (for "Facilitating Adjustment of Cognitions and Emotions"), demographic and mental health data were gathered through an evidence-based developmental psychopathology protocol including family history and a contextual clinical diagnostic interview consistent with DSM-IV criteria. **Results:** The developmental psychopathology protocol revealed a history of misdiagnosis for eighteen youth (aged 9 to 17, 60% boys, 50% North-African, 39% African, 11% other) out of ninety ethnic minority patients, compared to only five children out of ninety non-minority controls. Given retrospective analysis and current diagnostic interview, it appeared that Attention Deficit/Hyperactivity (39%), Bipolar Disorder (17%), depression (22%), posttraumatic (11%) and other diagnoses (11%) had remained unidentified or mislabeled up to current referral. Psychopathological manifestations identified through systematic and culture-sensitive probing had been formerly mislabeled principally as intellectual disability, psychosis or schizophrenia, and psychopathy. Current referral resulted from previous treatment inadequacies, cumulating with poorly understood socio-cultural manifestations of psychosocial stresses according to youth and families' narratives. Multiple referrals and treatments also tended to reflect more subtle forms of socio-cultural stigma. Additionally, analysis of service provisions in socio-economically disadvantaged areas indicates identified yet unmet needs regarding staffing and personnel training. Interestingly, interaction effects tend to occur through patients' internalised reluctance to discuss cultural-ethnic issues in an assimilation oriented society. **Conclusions:** Implementing an evidence-based, culture-sensitive clinical protocol proves effective to a) gather mental health data that allow identification of contextually relevant risk/resiliency factors, b) enhance adequate identification of treatment needs, c) facilitate patient - service provider communication on potentially sensitive issues, d) facilitate personnel training through the use of a common framework. As applied in the FACE programme<sup>®</sup>, treatment effectiveness, although still relatively rare in France, a more explicit and systematised focus on socio-cultural aspects of psychopathology manifestations as reported by patients appears beneficial to advance fair mental health service provision to a socio-ethnically diverse population.

**REFERENCES:**

- INSERM [National Institute for Health and Medical Research]. *Troubles Mentaux. Dépistage et prévention chez l'enfant et l'adolescent.* [Mental Disorders. Screening and Prevention in Children and Adolescents]. Paris, Les éditions INSERM, 2001.
- Kirmayer LJ: Culture, context and experience in psychiatric diagnosis. *Psychopathology* 2005; 38(4):192-196.

No. 98

**STORIES ABOUT MENTAL HEALTH: A CROSS-CULTURAL RELAPSE PREVENTION STUDY IN NORTHERN TERRITORY ABORIGINAL COMMUNITIES**

Tricia M. Nagel *Department of Health and Community Services, Top End Mental Health Services, 4 Griffe St, Nakara, Northern Territory, 0810, Australia, Carolyn Thompson*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to:

Recognize the heterogeneity of indigenous cultures in the Top End of Australia

Understand the challenges to mental health and mental health promotion in these communities.

Consider the cultural context of mental health promotion and the meaning of mental health literacy in the setting of remote indigenous communities.

Learn the specific differences in mental health story telling between urban Top End communities and two remote Top End communities.

Compare mental health promotion, motivational principles, self-management of chronic disease principles, and notions of recovery and empowerment in the indigenous context.

**SUMMARY:**

**Objective:** This four-year study in remote communities of the Northern Territory has three phases:

To develop cross culturally appropriate mental health promotion resources

To link them with a motivational care planning intervention

To establish that the combined intervention correlates with improved outcomes for Aboriginal people with chronic mental illness.

The results of the first phase are the subject of this report.

**Method:** The research team comprises two Aboriginal researchers and one non-indigenous psychiatrist. A generic set of resources was developed through consultation in the urban Aboriginal setting. These were adapted within two remote communities in collaboration with the local Aboriginal Mental Health workers. Clients and their primary carer will be recruited to the trial and randomised into two groups - 'treatment as usual' and the intervention group. The intervention involves exposure to the education stories in the setting of two sequential motivational care planning sessions. The two groups will be followed for eighteen months. Base line and follow up measures include semi-structured interviews, the Health of Nations Outcome Scale, the Life Skills Profile, and the Severity of Dependence Scale.

**Results:** The generic stories have been adapted in two communities. Local settings, local people, local language, local artwork, and local traditional music have been incorporated. Two of the stories will be presented as short animated videos.

**Conclusions:** The generic resources, which included a story telling approach, an emphasis on pictures as well as words, Aboriginal English, and NT Aboriginal images - were significantly altered by the remote communities. The story development phase of this project confirmed the marked heterogeneity of Aboriginal communities of the Top End. It is likely that health promotion interventions, which acknowledge such differences, will be better received and more effective. This research enhances community capacity and cross-cultural understanding of NT Aboriginal mental health.

**Funding:** The National Health and Medical Research Council, the Cooperative Research Centre for Aboriginal Health, the Alcohol Education and Rehabilitation Foundation and the Department of Health and Community Services, Northern Territory support this project.

## REFERENCES:

1. Murray R, Bell, K, Elston, J., Ring, I., Frommer, M., Todd, A. Guidelines for development, implementation and evaluation of national public health strategies in relation to ATSI peoples' National Public Health Partnership, 2002, Melbourne, Vic.
2. Labonte R and Feather J, Handbook on Using Stories in Health Promotion Practice, Prairie Region Health Promotion Research Centre, University of Saskatchewan, Health Canada 1996.

No. 99

**RECOGNIZING AND ENGAGING DEPRESSED CHINESE AMERICANS IN TREATMENT IN A PRIMARY CARE SETTING**

Albert Yeung, M.D. *Massachusetts General Hospital, Psychiatry, 50 Staniford Street, Suite 401, Boston, MA, 02114*, Shu Jing Yu, M.A., Freddy Fung, B.A., Sienna Vorono, B.A., Maurizio Fava, M.D.

**EDUCATIONAL OBJECTIVES:**

To learn about the usefulness of combining depression screening and a culturally sensitive interview for disclosure of illness and treatment negotiation (Engagement Interview) in recognizing and engaging depressed Chinese Americans in treatment.

**SUMMARY:**

**Objective:** To examine the effectiveness of depression screening and the Engagement Interview in identifying and engaging depressed Chinese Americans in treatment in primary care settings. **Method:** Chinese American patients who attended a primary care clinic were screened for depression using the Chinese Bilingual version of Patient Health Questionnaire (CB-PHQ-9). Patients who screened positive (CB-PHQ-9 $\geq$ 15) were evaluated with the Engagement Interview Protocol (EIP), an instrument used to establish clinical diagnosis, communicate psychiatric diagnoses, and negotiate treatment options attuned to patient's cultural viewpoints. **Results:** During the study period, 3,234 patients completed the CB-PHQ-9. One hundred and four (3.2%) patients screened positive for MDD; among them 5 (4.8%) had been receiving psychiatric treatment for depression, 53 (51%) declined to receive a psychiatric interview or were unable to be contacted; and 46 (44%) agreed to be interviewed with the EIP, and 41 (89%) patients out of the 46 patients were confirmed with MDD. Among these 41 MDD patients, 38 (92.7%) agreed to receive treatment for depression.

**Conclusions:** Routine depression screening followed by the Engagement Interview using the EIP facilitates the recognition and engagement of depressed Chinese Americans in treatment.

**REFERENCES:**

1. Pignone MP, Bradley G, Rushton JL, Burchell CM, Orleans CT, Mulrow CD, Lohr KN. Screening for depression in adults: A summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2002 May 21;136(10):765-76.
2. Fung F, Yeung AS: Depression Screening: Utility of the PHQ-9 on Chinese Americans. Presented at the Annual Meeting of the American Psychological Association, Washington, D.C., 2005.

THURSDAY, MAY 25, 2006

**SCIENTIFIC AND CLINICAL REPORT SESSION 34—CURRENT RESEARCH IN DEPRESSION AND ANXIETY**

No. 100

**DESVENLAFAXINE: PRECLINICAL EVIDENCE FOR 5HT AND NOREPINEPHRINE REUPTAKE INHIBITION, ANTIDEPRESSANT, AND ANTINOCICEPTIVE ACTIVITY**

Terrance H. Andree, Ph.D. *Wyeth Research, Neuroscience Discovery, 865 Ridge Road, Monmouth Junction, NJ, 08852*, Darlene Deecher, Ph.D., Lee Dawson, Ph.D., Liza Leventhal, Ph.D., Paul Mitchell, Ph.D., Sharon Rosenzweig-Lipson, Ph.D., Chad E. Beyer, Ph.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to describe the in vitro and in vivo evidence of serotonin and norepinephrine reuptake inhibition by DVS and to discuss the activity of DVS in animal models of depression, anxiety, and pain disorders.

**SUMMARY:**

**Objective:** Desvenlafaxine succinate (DVS) is a selective and novel serotonin (5HT) and norepinephrine (NE) reuptake inhibitor (SNRI). **Method:** In vitro and in vivo studies were conducted to characterize the activity of desvenlafaxine at human monoamine transporters and to assess activity in animal models predictive of antidepressant, anxiolytic, and antinociceptive efficacy. **Results:** In vitro, DVS demonstrated a ratio of activity of approximately 10 for the human 5-HT and NE transporters (IC<sub>50</sub> values of 50 and 531 nM, respectively). Orally administered DVS rapidly enters the brain in rats. In vivo microdialysis studies showed that DVS produced maximal increases in 5-HT and NE of 254% and 338%, respectively, in the rat cortex. Desvenlafaxine produced a robust and dose-dependent decrease in immobility time in the mouse tail suspension test (MED = 56 mg/kg, ip), and decreased aggression in the rat resident intruder paradigm (ID<sub>50</sub> = 12.7 mg/kg, SC). DVS also produced an increase in punished responding in the mouse four-plate assay. DVS demonstrated efficacy in models of neuropathic, diabetic, and visceral pain. **Conclusions:** DVS is a novel SNRI with demonstrated activity in preclinical models of depression, anxiety, and pain.

**Funding:** Wyeth Research

**REFERENCES:**

1. Muth EA, Moyer JA, Haskins JT, Andree TH, Husbands GEM: Biochemical, neurophysiological, and behavioral effects of WY-45,233, its enantiomers, and other identified metabolites of the antidepressant venlafaxine. *Drug Dev Res* 1991; 23:191-199.
2. Mitchell PJ, Fletcher A: Venlafaxine exhibits pre-clinical antidepressant activity in the resident-intruder social interaction paradigm. *Neuropharmacology* 1993; 32(10):1001-1009.

No. 101

**EFFICACY AND SAFETY OF DESVENLAFAXINE SUCCINATE IN THE TREATMENT OF MDD**

Nicholas Demartinis, M.D. *University of Connecticut School of Medicine, Psychiatry, 10 Talcott Notch Road East, MC-6415, Farmington, CT, 06030*, Paul Yeung, M.D., Richard Entsuah, Ph.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to discuss the efficacy, safety, and tolerability of 3 doses of DVS in the short-term treatment of major depressive disorder, including its effects on symptoms of pain associated with depression.

**SUMMARY:**

**Objective:** Evaluate the efficacy and safety of an extended-release formulation of desvenlafaxine succinate (DVS), a novel serotonin-norepinephrine reuptake inhibitor (SNRI) in the short-term treatment of major depressive disorder (MDD). **Method:** Depressed outpatients (aged 18 to 65) were randomly assigned to DVS 100mg/day (n=114), 200mg/day (n=116), 400mg/day (n=113), or placebo (n=118) for 8 weeks. The primary efficacy variable was change from baseline in 17-item Hamilton Depression Rating Scale (HAM-D<sub>17</sub>) score at the final on-therapy evaluation. The key secondary efficacy variable was the Clinical Global Impression-Improvement (CGI-I) score. The Visual Analog Scale-Pain Intensity (VAS-PI) was used to evaluate improvement in depression-related pain. Efficacy analyses were based on the ITT population on a LOCF basis. **Results:** Reduction in HAM-D<sub>17</sub> scores for the DVS 100-mg (-10.60) and 400-mg (-10.74) groups was significantly greater versus the placebo group (-7.65; P=0.0038 and P=0.0023, respectively); for the 200-mg group, the reduction was -9.63 (P=0.0764). All dose groups demonstrated significantly greater improvement on CGI-I versus placebo. Improvement in VAS-PI overall pain was significantly better for the 100-mg group versus placebo (P=0.002). DVS was generally well tolerated; adverse events were consistent with the SNRI class. **Conclusions:** DVS was effective and well tolerated in short-term treatment of MDD.

Funding: Wyeth Research

**REFERENCES:**

1. Briley M: Clinical experience with dual action antidepressants in different chronic pain syndromes. *Hum Psychopharmacol* 2004; 19 Suppl 1:S21-S25.
2. Zajecka JM, Albano D: SNRIs in the management of acute major depressive disorder. *J Clin Psychiatry* 2004; 65 Suppl 17:11-8.

**No. 102****PANIC DISORDER ASSOCIATED WITH SEVERE DIZZINESS: DEMOGRAPHIC AND CLINICAL FEATURES AND TREATMENT WITH CLONAZEPAM**

Antonio E. Nardi, M.D. *Federal University Rio de Janeiro, Institute of Psychiatry, R. Visconde de Pirajá, 407/702, Rio de Janeiro, 22410-003, Brazil.* Marco A.U. Mezzasalma, Alexandre M. Valenca, M.D., Isabella Nascimento, M.D., Fabiana L. Lopes, M.D., Rafael C. Freire, M.D., Flavia S. Franco, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to recognize the demographic and clinical features of the panic disorder associated with severe dizziness. The participant should also be able to compare the panic disorder associated with severe dizziness with other panic disorder subtypes and observe the therapeutic response in the panic disorder associated with severe dizziness comparing it with other panic disorder subtypes.

**SUMMARY:**

**Objective:** To describe with prospective methodology the clinical features and therapeutic response to clonazepam in the panic disorder (PD) associated with severe dizziness. **Method:** 17 PD outpatients (DSM-IV) who the main complain was an incapacitating dizziness during their panic attack were demographic and clinically evaluated and then openly treated with clonazepam for 12 weeks in the Institute

of Psychiatry - Federal University of Rio de Janeiro. We used for comparison a control group (n=20) of PD patients without any or very mild complain about dizziness. The control group was also openly treated with clonazepam. The principal instruments used to evaluate response were the Clinical Global Impression, the Sheehan Panic and Anticipatory Scale, and the Panic Disorder Severity Scale. Questionnaires assessing physical and psychological symptoms, occupational disability, and handicap were also administered. **Results:** In the PD patients with severe dizziness, the disorder had a later onset, was associated with a high familial history of anxiety disorder and dizziness, and they had a significant less previous depressive episodes. In the first week of treatment, the PD with severe dizziness patients had a significant response in all the major scales. The mean dose at the end-point was 2.5mg/day. After the first week and during the 12-week period, there was a continuous improvement in the scale scores, and the reduction in panic attacks from baseline to end-point in both groups. The PD with severe dizziness has a faster response but after the first week both groups had a similar and sustained response. **Conclusions:** The PD with severe dizziness may be confirmed as a sub-group of PD with clinical and therapeutic characteristics. The PD associated with severe dizziness may have a good response to clonazepam for the PD and dizziness symptoms since the first week of treatment.

**REFERENCES:**

1. Perna G, Dario A, Caldirola D, Stefania B, Cesarani A, Bellodi L: Panic disorder: the role of the balance system. *J Psychiatr Res* 2001; 35:279-286.
2. Gallinat J, Stotz-Ingenlath G, Lang UE, Hegerl U: Panic attacks, spike-wave activity, and limbic dysfunction. A case report. *Pharmacopsychiatry* 2003; 36:123-126.

**SCIENTIFIC AND CLINICAL REPORT SESSION 35—PANIC DISORDERS****No. 103****A 40-YEAR FOLLOW-UP STUDY OF PATIENTS WITH PANIC DISORDER**

Gabriel Rubio, M.D. *Department Mental Health, Madrid, Spain, Psychiatry, Lope de Rueda, 43, Madrid, 28050, Spain,* Juan J. López-Ibor, Jr., M.D.

**EDUCATIONAL OBJECTIVES:**

Recognize clinical characteristics related to outcome in subjects with panic disorder

**SUMMARY:**

**Objective:** There is insufficient knowledge of the long-term course of panic disorder (1). We studied the course of this disorder in patients who were followed up for 40 years.

Hence the aim of the present work, which is to determine the long-term course and prognostic variables in patients diagnosed with PD

**Method:** Patients attending who were diagnosed of an anxiety condition to the López Ibor Neuropsychiatric Research Institute in Madrid (Spain), between 1950 and 1961, were examined by an experienced psychiatrist (GR) using a semistructured interview between 1984 and 1988 (n=144). The diagnosis of panic disorder (with and without agoraphobia) was then retrospectively made according to DSM-III-R criteria. A re-examination was performed by the same psychiatrist in the period 1997-2001 (N=125). Mean length of follow-up from onset was 47 years. **Results:** Improvement was observed in 68%. Among those who recovered, 93% had done so already by the 1980s. Progression to panic disorder with agoraphobia was related to family history of anxiety disorders and onset of panic disorder before age 25. Lack of regular treatment compliance, progression

to agoraphobia and number of episodes of panic disorder were associated with worse outcome. Agoraphobia without panic attacks and somatization symptoms were the most prevalent clinical status at follow-up. Conclusions: After several decades, participants improve with regard to number of panic attacks, though most continue to have residual symptoms (phobic avoidance and somatizations).

#### REFERENCES:

1. Roy-Byrne PP, Cowley DS: Course and Outcome in Panic Disorder: A review of recent follow-up studies. *Anxiety* 1994; 1: 151-160.
2. Swoboda H, Amering M, Windhaber J, Katsching H: The long-term course of panic disorder 'an 11-year follow-up. *Anxiety Dis* 2003; 17: 223-232.

#### No. 104

### RESILIENCE IN ANXIETY DISORDERS

Catherine Mancini, M.D. *McMaster University, Department of Psychiatry & Behavioural Neurosciences, 1200 Main Street West, Hamilton, ON, L8N 3Z5, Canada*, Michael Van Ameringen, M.D., Beth Patterson, B.S.N., Mark Bennett, B.A., Jonathan Oakman, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

1. understand the construct of resilience and its relationship to anxiety disorders.
2. understand the relationship between anxiety symptom severity and resilience.

#### SUMMARY:

Objective: Functional impairment has been well established with anxiety disorders, however, little is known about resilience and the development of psychiatric illness. Resilience has been defined as the personal qualities which enable one to thrive in the face of adversity. Resilience has been shown to be modifiable and improve with treatment. We evaluated the relationship of resilience with anxiety diagnosis, symptom severity and functional impairment. Method: Fifty-one consecutive SCID diagnosed patients with an anxiety disorder, completed the Connor-Davidson Resilience Scale (CD-RISC) and a battery of symptom severity measures. Results: Resilience was negatively correlated with the Padua Obsessive Compulsive Disorder Inventory-Revised ( $r = -.395, p \leq .01$ ), the Social Phobia Inventory ( $r = -.517, p \leq .001$ ), the Panic Agoraphobia Scale ( $r = -.401, p \leq .01$ ), the Beck Anxiety Inventory ( $r = -.528, p \leq .001$ ), the Montgomery Asberg Depression Rating Scale ( $r = -.626, p \leq .001$ ), the Sheehan Disability Inventory ( $r = -.674, p \leq .001$ ), and number of comorbid diagnoses ( $r = -.391, p \leq .01$ ). No significance was found in resilience by primary anxiety disorder diagnosis. Conclusions: Resilience appears to be highly related to illness severity in anxiety disorders. Future studies should examine the specific nature of this relationship. Does a pre-morbid level of resilience influence the development or course of the anxiety disorder or does the development of the anxiety disorder change ones resilience?

#### REFERENCES:

1. Connor KM, Davidson JRT: Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety* 2003; 18:76-82.
2. Davidson JRT, Payne VM, et al: Trauma, resilience and salios-tasis: effects of treatment in posttraumatic stress disorder. *International Clinical Psychopharmacology* 2005; 20:43-48.

#### No. 105

### THE NATURALISTIC TREATMENT OF PANIC DISORDER IN A REAL WORLD CLINICAL SETTING

Eric D. Peselow, M.D. *New York University School of Medicine, Psychiatry, 32 Bassett Avenue, Brooklyn, NY, 11234*, Lydia O. O. Fazio, M.D., Caroline B. Williams, M.D.

#### EDUCATIONAL OBJECTIVES:

To assess how patients with panic disorder are treated in a naturalistic clinical setting as compared with the evidence based literature

#### SUMMARY:

Objective: The short and long-term treatment of panic disorder has been established in double blind placebo controlled trials. However the main question is do these evidence based studies represent what is done in clinical practice. Often in clinical practice, one does not have the homogenous patient found in clinical practice- that is in clinical practice unlike the evidence based studies patients have comorbid conditions and are often on more than one drug. It is the purpose of this evaluation to describe the clinical and treatment characteristics of patients with a primary diagnosis of panic disorder who were seen in a community based anxiety/depression clinic Method: 680 patients who were treated for panic disorder in a community based anxiety/depression clinic over a 13 year period were included in our analysis. Clinical parameters sex as sex, age, onset of illness were collected. At the beginning of treatment patients were assessed with a SCID to assess comorbidity with panic disorder (other anxiety disorders and depression). The 680 patients were all treated acutely for alleviation of their panic attacks over an 8-12 week period. All patients involved in the analysis responded with alleviation of all full blown panic attacks and sustained the response for a minimum of one succeeding month. The pharmacologic treatment the patient was receiving at this time point was recorded. In addition non-biological treatments were recorded. Results: The sample included 445 females (67%) and 235 males (35%). 353 patients (52%) were treated with a single antidepressant, 160 were treated with an antidepressant + anti-anxiety agent (24%), 77 (11%) were treated with an antidepressant + mood stabilizer or neuroleptic and 90 (13%) were on three or more drugs. Only 141 of the 680 patients (21%) had panic disorder alone and the average number of diagnoses for the panic patients was 3.7. Of the 680 patients who had recovered with no full blown panic attacks, 3 months later 64 had either relapsed (N=45) or dropped out of treatment (N=19). At 6 months after initial recovery (N=68) more patients had either relapsed (N=48) or dropped out (N=20) and at one year after initial recovery (N=57) more patients had either relapsed (N=36) or dropped out (N=21). Overall 304 patients (44%) had received non-biological therapy (predominantly cognitive behavioral therapy) in addition to pharmacotherapy Conclusions: Despite the lack of evidence based studies many patients treated with a variety of strategies responded acutely with alleviation of panic attacks. The implications of these findings and differences between evidenced based studies and real world treatment in a clinical setting will be discussed

#### REFERENCES:

1. Otto MW, Deveney C. - Cognitive-behavioral therapy and the treatment of panic disorder: efficacy and strategies.-*J Clin Psychiatry*. 2005;66 Suppl 4:28-32.
2. Bakker A, van Balkom AJ, Stein DJ.-Evidence-based pharmacotherapy of panic disorder.- *JNeuropsychopharmacol*. 2005 Sep;8(3):473-82.

## SCIENTIFIC AND CLINICAL REPORT SESSION 36—FAMILY CONTRIBUTIONS/ PERSPECTIVES

No. 106

### FAMILY BACKGROUND AND GENIUS: NOBEL LAUREATES IN SCIENCE

Albert Rothenberg, M.D. *Harvard University, Psychiatry, P.O. Box 1001, Canaan, NY, 12029*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation the participant should be able to identify healthy developmental influences on creativity, improve therapeutic facilitation of creativity and the psychiatric treatment of creative persons, and carry out effective genetic counseling regarding creativity and genius.

#### SUMMARY:

Objective: The recent Centennial Exhibition, "Cultures of Creativity", by the Nobel Foundation has focused on the importance of individual creativity in scientific progress. That such creativity is directly inherited has long been a widely held popular and professional belief. The purpose of this study is to assess the hypothesis of direct inheritance of scientific genius and creativity. Method: Family background data was collected on 435 out of all 488 scientific Nobel laureates (Chemistry, Physics, and Medicine and Physiology) from the beginning year 1901 through 2003. These were compared for incidence of occupational inheritance, i.e., same parent-offspring occupations, with an independently selected matching control group of 548 eminent non-scientists, and for predominant types of occupations with a second independently selected group of 560 longitudinally-followed high IQ non-prizewinners. Results: Incidence of one or both parents in the same occupation was only 2% for science Nobel laureates but 20% for eminent non-scientists,  $p < .001$ . Instead, the predominant family background constellation (63%) for science Nobel laureates consisted of the same-sex parent in a performance equivalent occupation involving applied science, technology, or nature world focus and skills ( $p < .001$  in comparison with the matching group), and in both performance equivalent and unrelated occupations, these parents manifested lifelong unfulfilled wishes for creative scientific expression and pursuits. Conclusions: Nobel laureates in the natural sciences do not manifest direct inheritance of creativity from their parents; instead, congruent-gender parents are predominantly in equivalent applied or performance occupations and possess lifelong unfulfilled creative wishes. Complex gene expressions interacting with early developmental influences on motivation are suggested.

#### REFERENCES:

1. Rothenberg A. & Wyshak G. Family background and genius. *Can J Psychiatry* 2004;49:185-191.
2. Kendler KS. Psychiatric genetics: a methodological critique. *Am J Psychiatry* 2005;162:3-11.

No. 107

### FAMILIAL PSYCHIATRIC DISORDERS AND SUDDEN INFANT DEATH SYNDROME: IS THERE A SIGNIFICANT RELATIONSHIP?

Jeffrey Sverd, M.D. *SUNY STONY BROOK, PSYCHIATRY and BEHAVIORAL SCIENCE, South Campus, Putnam Hall, Stony Brook, NY, 11794-8790*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize that a significant relationship may exist between psychiatric disorders and a subgroup of SIDS. Results of a survey of families of children referred for psychiatric treatment suggests that families with psychiatric illness are at increased risk of SIDS. Some families with SIDS and families with psychiatric disturbance share clinical correlates. These include psychosocial adversity and impulsive and compulsive behaviors, alcohol and substance abuse and nicotine dependence. The increased risk of SIDS in families with psychiatric disorders may result in part from shared genetically determined dysfunction in neurotransmitter systems which contributes to the pathogenesis of psychiatric disturbances and SIDS. These observations may assist in better identifying families at risk of SIDS.

#### SUMMARY:

Objective: To ascertain the frequency of sudden infant death syndrome [SIDS] in families with psychiatric disorders. SIDS is defined as the sudden death of an infant that is unexpected and unexplained by autopsy and death scene investigation. It is the most common cause of post-neonatal infant mortality. Risk factors include male gender, prematurity, prone sleep position, infant apnea, minority status, lower socioeconomic status, maternal single marital status and decreased age and education, and maternal cigarette smoking and substance abuse. SIDS is considered a heterogeneous clinical entity. Sleep-related impairment of respiratory control and arousal is postulated to be among the basic mechanisms in SIDS and dysfunction of a number of neurotransmitter systems including serotonergic, muscarinic, glutamatergic, noradrenergic and dopaminergic has been hypothesized. Developmental abnormalities are postulated. Tourette's disorder [TD] is a common hereditary tic disorder whose manifestations include a wide array of neuropsychiatric disorders including disorders of sleep arousal. The neuropsychiatric disturbances are hypothesized as sharing a genetic relationship with the tic disorder. The prevalence of SIDS in families with TD has been reported in 2 independent studies to be 2-5 times that in the general population [1-2 cases per 1000 live births before the "Back to Sleep" campaign]. Because of the significant relationship between TD and psychiatric disorders and because SIDS, TD and psychiatric disorders share clinical correlates and may share genetically determined dysfunction in neurotransmitter systems, this study ascertained the frequency of SIDS in families with psychiatric disturbances. Regarding the hypothesis of a shared genetic relationship between SIDS and psychiatric disorders are the recent findings of an association between SIDS and polymorphisms of the serotonin transporter gene. Method: The study sample consisted of 292 consecutively evaluated child and adolescent psychiatric inpatients and outpatients in whom a parent was available for interview. Subjects were ascertained beginning in early 1992 and before the "Back to Sleep" campaign. Parents were asked if there had ever been a child in the family who had died of SIDS or suffered apparent life-threatening apneic events [ALTE]. Independent external reports corroborating cause of death were not obtained. Diagnosis of proband psychiatric disorders was made upon completion of clinical evaluations and familial psychiatric disturbances were identified by parent interview and chart review. Results: Probands, full and half siblings were counted. This totaled 815 individuals. Seven cases of SIDS were reported. This is a prevalence of 1 in 116 [0.85%] live births, a rate 5 times or greater than that in the general population. An additional 29 individuals, including 15 probands, had ALTE. Five victims were male, 2 were female. Two males were African-American and the remainder Caucasian. The ages at death ranged from 1.5- 6 months [mean 3.4 months]. Of the 292 families there were 53 families [18%] in whom a member was reported to have experienced ALTE or died of SIDS. Psychiatric disorders consisted of the full array of disorders previously reported in families with TD and SIDS.

Conclusions: Families with psychiatric disturbance may be at increased risk of SIDS. Shared genetic factors may contribute to this risk.

#### REFERENCES:

1. Hunt CE, Hatuck FR : Sudden infant death syndrome. In Nelson Textbook of Pediatrics, 17th edition edited by Behrman RE, Kleigman RM, Jensen HB, Philadelphia, Saunders, 2004, pp 1380-1385.
2. Sverd J, Montero G : Is Tourette syndrome a cause of sudden infant death syndrome and childhood obstructive sleep apnea ? *Am J Med Genet* 1993; 46:494-496.

#### No. 108

### THE PARENT'S PERSPECTIVE ON GENDER VARIANT CHILDREN AND ADOLESCENTS: CONCERNS, HOPES, AND JOYS

Darryl B. Hill, Ph.D. *College of Staten Island, City University of New York, Psychology, 2800 Victory Blvd., Staten Island, NY, 10314*, Edgardo J. Menvielle, M.D., Kristin Sica, Alisa Johnson

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to

1. Identify the concerns, hopes, and joys of being a parent of a gender variant child.
2. Recognize the psychological issues faced by parents of gender variant offspring.

#### SUMMARY:

Objective: Parents who have gender variant children and adolescents face unique parenting challenges, and treatments for gender variant youth are highly controversial. This paper will explore results from a pilot study investigating the experiences of a sample of parents who are raising gender variant offspring. Method: Parents from across the United States were either currently involved with, or had just contacted, the Outreach Program "Outreach Program for Children with Gender-Variant Behaviors and Their Families" at the Children's National Medical Center, in Washington, DC. They filled out the Child Behavior Check-List (CBCL; Achenbach & Edelbrock, 1981), the Gender Identity Questionnaire (GIQ; Johnson, Bradley, Birkenfeld-Adams, Radzkins Kuksis, Maing, Mitchell, & Zucker, 2004), the Genderism and Transphobia scale (GTS; Hill & Willoughby, 2005), and a demographic questionnaire. Then, parents were interviewed over the phone about their experiences with their child and the Outreach program. Results: Most, but not all, offspring met the most restrictive criteria for GID (a wish to be or claim they are the other sex). Questionnaire data indicated that the parents were higher in socioeconomic status than reported in previous studies. Similar to other reports, there was also a high proportion of adoptive parents than one might observe in the general population. In contrast, though, this sample of parents rarely rated their youth in the clinical ranges on the CBCL, with the exception of the masculine-identified girls, who scored quite high on the peer relations subscale. These results are surprising because parents also rated their children and adolescents as extremely gender variant on the GIQ. In general, these parents were highly accepting of gender variance as they rated scored about half of what a general college sample might score on the GTS.

The interviews explored the parents' experiences with their child and revealed some interesting results. The primary concern for parents was not the possibility of their child's eventual homosexual or transsexuality, but rather hopes for their overall adjustment and success at avoiding victimization. Among the biggest challenges facing these parents were balancing acceptance of their child's gender choices with worries about being too encouraging for their gender

variance. Interestingly, rather than characterizing their child as highly distressed and pathological, most parents portrayed their children as very happy and charming, bringing them unexpected pleasure and joy. Conclusions: This study questions the characterization of parents who have children who are diagnosed with gender identity as having deeply distressed children for which they wish to change back into "stereotypically" gendered children. In contrast, this sample of parents were seeking assistance to support their child's cross-gender choices and advocate on behalf of their child with other children, family, teachers, and mental health professionals.

#### REFERENCES:

1. Wren B: 'I can accept my child is transsexual but if I ever see him in a dress I'll hit him': Dilemmas in parenting a transgendered adolescent. *Clin. Child Psych. Psychi.* 2002; 7: 377-397.
2. Menvielle EJ & Tuerk C: A support group for parents of gender-nonconforming boys. *J Am. Acad. Child Adol. Psych.* 2002; 41: 1010-1013.

### SCIENTIFIC AND CLINICAL REPORT SESSION 37—MATCHING TREATMENT TO APPROPRIATE POPULATIONS

#### No. 109

### PATTERNS OF SYMPTOM RESPONSE IN THE TREATMENT FOR ADOLESCENTS WITH DEPRESSION STUDY: DO SOME SYMPTOMS RESPOND BETTER TO CERTAIN TREATMENTS?

Jessica L. Murakami, M.S. *University of Oregon, Clinical Psychology, 406 4th St., Apt. 12, Springfield, OR, 97477*, Anne Simons, Ph.D., Lou Moses, Ph.D., Susan Silva, Ph.D., John S. March, M.D.

#### EDUCATIONAL OBJECTIVES:

Despite a growing number of published clinical trials, there is little known about the patterns of symptom response in individuals treated for major depression, especially in adolescents. The tendency has been to view depression as a unified concept with core symptoms improving simultaneously over time. However, some evidence suggests that symptom improvement occurs in clusters, with certain symptoms of depression improving relatively earlier or later than other symptoms (Worthington et al. 1995). Interestingly, patterns of symptom response may differ by type of treatment (Dimascio et al. 1979).

To our knowledge, there have not been any studies comparing patterns of symptom improvement between different treatments for depression since Dimascio's study in 1979, and no studies investigating patterns of symptom response in adolescents. There is also very little known about the pattern of response in CBT, a combination of CBT and pharmacotherapy, or placebo.

At the conclusion of this presentation, the participant should be able to identify patterns of symptom response in depressed adolescents treated with fluoxetine, cognitive behavior therapy (CBT), combination treatment, and placebo.

#### SUMMARY:

Objective: There is little known about the patterns of symptom response in individuals treated for major depression, especially in adolescents. The purpose of this study is to investigate and compare patterns of symptom response in depressed adolescents treated with fluoxetine, cognitive behavior therapy (CBT), combination treatment, or placebo.

Method: Adolescents aged 12-17 meeting DSM-IV criteria for major depression (n=439) randomly assigned to one of the above conditions were administered a 31-item symptom measure, the Affective Disorders Screen (ADS), at weeks 0, 2, 4, 6, 8, 10, and 12.

Principal Components Analysis (PCA) with a varimax rotation of the ADS was used to identify 5 factors or symptom clusters of depression labeled "depressed mood", "attention/hyperactivity", "appetite/weight changes", "suicidality", and "mania." Using a repeated measures analysis of variance, patterns of symptom response over time in each of the treatment conditions were analyzed for each symptom cluster.

Results: There was a main effect of treatment [ $F(3, 428)=6.69$ ,  $p<.001$ ], time [ $F(6, 1837)=80.06$ ,  $p<.001$ ], and a treatment x time interaction [ $F(18, 1837)=1.61$ ,  $p<.05$ ] for the "depressed mood" cluster, with combination treatment separating from placebo by week 4. There were also main effects of time for the "attention" [ $F(6, 1839)=26.40$ ,  $p<.001$ ], and "suicidality", [ $F(6, 1838)=37.94$ ,  $p<.001$ ] clusters. There were no other main or interaction effects. Conclusions:

Adolescents in each of the four treatment conditions tended to experience decreasing levels of depressed mood, attention, and suicidality symptoms over time. Combination treatment was the most effective treatment for symptoms related to depressed mood. Appetite and mania symptoms did not improve over time, regardless of treatment type.

#### REFERENCES:

1. DiMascio A, Weissman MM, Prusoff BA, Neu C, Zwillings M, Klerman GL: Differential symptom reduction by drugs and psychotherapy in acute depression. *Arch Gen Psychiatry*. 1979; 36:1450-6.
2. Worthington J, Fava M, Davidson K, Alpert J, Nierenberg AA, Rosenbaum JF: Patterns of improvement in.

#### No. 110

### ANTIPSYCHOTICS IN THE TREATMENT OF DELIRIUM: A REVIEW OF PROSPECTIVE TRIALS

Dallas P. Seitz, M.D. *Queen's University, Psychiatry, 166 Brock Street, Kingston, ON, K7L 5G2, Canada*, Sudeep S. Gill, M.D., Louis T. van Zyl, M.B.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

- 1.) Demonstrate an understanding of the evidence supporting the use of antipsychotics in the treatment of delirium; and
- 2.) Appreciate the limitations of the current literature regarding the antipsychotic treatment of delirium.

#### SUMMARY:

**Objective:** The purpose of this study was to evaluate the evidence supporting the use of antipsychotics in the treatment of delirium. **Method:** A search of Medline (July 1980 - July 2005) and Cochrane databases were undertaken to identify prospective antipsychotic treatment trials utilizing standardized criteria for diagnosing and evaluating delirium severity. **Results:** Fourteen articles were identified; 9 single agent studies and 14 comparison studies. Study medications included haloperidol, chlorpromazine, olanzapine, risperidone and quetiapine. Improvements in delirium severity were observed with all antipsychotic medications. **Methodological limitations included:** lack of blinding, poor randomization and failure to use intention-to-treat analysis. No trial included a non-medication control group. Response and remission rates were reported in 6/15 trials and varied between 50 and 100%. The dose of medication used in delirium trials was lower than those typically used in treating psychosis. Serious adverse events attributable to medication were uncommon. **Conclusions:** Although improvement in delirium was observed in all studies, the evidence supporting the use of antipsychotics in delirium is limited by the small body of literature and methodological shortcomings of studies. No study controlled adequately for sponta-

neous improvement in delirium. Without controlled studies, it has not been demonstrated that antipsychotics improve clinical outcomes in delirium.

#### REFERENCES:

1. American Psychiatric Association: Practice Guideline for the Treatment of Patients With Delirium. *Am J Psychiatry* 1999; 156(supplement):1-20.
2. Cole MG, Primeau FJ, Elie LM: Delirium: Prevention, Treatment and Outcome Studies. *J Geriatr Psychiatry Neurol* 1998; 11:126-137.

#### No. 111

### TREATMENT MATCHING IN THE POST-HOSPITAL CARE OF PATIENTS WITH DEPRESSION

Gabor I. Keitner, M.D. *Rhode Island Hospital, Psychiatry, 593 Eddy Street, Potter Room 300, Providence, RI, 02903*, Ivan W. Miller, Ph.D., Christine E. Ryan, Ph.D., David A. Solomon, M.D.

#### EDUCATIONAL OBJECTIVES:

The participant should have a better understanding of the effectiveness of pharmacotherapy, cognitive therapy and family therapy for the treatment of patients with depression and of the usefulness of matching treatments to patient deficits.

#### SUMMARY:

**Objective:** To assess the efficacy of: a) matching patients to treatments, and b) adding adjunctive family therapy or cognitive therapy in a sample of recently discharged patients with major depression. **Method:** Patients with, major depression were recruited during a psychiatric hospitalization. Following discharge, they ( $n=76$ ) were randomly assigned to one of four treatment conditions that was either "Matched" or "Mismatched" to their patterns of cognitive distortion and family impairment. The four treatment conditions were: a) Pharmacotherapy alone, ( $n=22$ ), b) Combined Pharmacotherapy + Cognitive Therapy ( $n=14$ ), c) Combined Pharmacotherapy + Family Therapy and ( $n=20$ ), d) Combined Pharmacotherapy + Cognitive Therapy + Family Therapy ( $n=20$ ). Randomized treatment continued for 24 weeks on an outpatient basis. Patients were diagnosed by SCID interview and met DSM III R criteria for Major Depressive Disorder. Depression severity was determined by the 17 - item Modified Hamilton Rating Scale for Depression (MHRSD) and the Beck Depression Inventory (BDI). Suicidality was assessed with the Modified Scale for Suicidal Ideation (MSSI). Remission was defined as:  $=MHRSD < 17$  and  $BDI < 19$  and remained in treatment. Improvement was defined as:  $\geq 50\%$  improvement in both MHRSD and BDI and patient remained in treatment. Hierarchical Linear Modeling was used to analyze change in depressive symptoms and suicidal ideation **Results:** Among patients with at least moderate depressive symptoms at hospital discharge, (MHRSD-17  $\geq 14$  or BDI  $> 16$ ) relatively low rates of remissions (16%) and improvement (29%) was obtained. Matched treatment led to significantly greater proportions of patients who improved ( $X^2(1) = 3.9$ ,  $p < .05$ ,  $d = .47$ ) and greater reductions over time in interviewer rated depressive symptoms than mismatched treatment ( $\gamma(11) = -2.12$ ,  $t(74) = 1.95$ ,  $p = .05$ ,  $d = .45$ ). However, matched treatment did not produce greater change in self-reported depressive symptoms or interviewer-rated suicidal ideation.

Treatment that included a family therapy component also led to greater proportions of patients who improved ( $\chi^2(1) = 10.1$ ,  $p < .01$ ,  $d = .78$ ), and to significant reduction in interviewer-rated depressive symptoms ( $\gamma(11) = -2.19$ ,  $t(74) = -2.05$ ,  $p = .04$ ,  $d = .48$ ), and suicidal ideation ( $\gamma(11) = -2.70$ ,  $t(74) = -2.36$ ,  $p = .02$ ,  $d = .55$ ), than treatment without family therapy. Treatment that included cognitive therapy was not associated with greater improvement in depressive symptoms or suicidal ideation.



Conclusions: *Conclusion:* These results suggest: a) current treatments are not very efficacious in the aftercare of hospitalized patients with major depression, b) treatment matching moderately improves outcome for patients who are symptomatic at hospital discharge, and c) inclusion of family therapy, but not cognitive therapy improves outcome of post-hospital care for patients with major depression.

#### REFERENCES:

1. Friedman M, Detweiler-Bedell J, Leventhal H, Thorne R, Keitner G, Miller I: Combined psychotherapy and pharmacotherapy for the treatment of major depressive disorder. *Clin. Psychol. Sci. Prac.* 2004; 11:47-68.
2. Book- *Integrating Psychotherapy and Pharmacotherapy Dissolving the Mind-Brain Barrier*; Bernard D. Beitman, M.D., Marton J. Blinder, M.D., Ph.D., Micheal E. Thase, M.D., Debra L. Safer, M.D.

## SCIENTIFIC AND CLINICAL REPORT SESSION 38—SUICIDE

### No. 112

#### DISTINGUISHING PATIENTS WHO ATTEMPT SUICIDE FROM PATIENTS WITH IDEATION ONLY

Stephen B. Woolley, M.P.H. *Institute of Living, Burlingame Center for Psychiatric Research and Education, 2200 Retreat Avenue, Hartford, CT, 06106*, John W. Goethe, M.D., Alexis M. May, B.A., Deborah Piez, M.S.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to list at least three features that distinguish patients who have attempted suicide from those with ideation but no history of an attempt.

#### SUMMARY:

Objective: To identify variables uniquely associated with history of suicide attempt. Method: Subjects were day program attendees recently discharged from an inpatient service (n=117). They were interviewed upon admission, and records were abstracted to determine history and status on multiple clinical and social functioning variables. An odds ratio (OR) was calculated for attempted suicide (versus no attempt) for each predictive variable. Results: Nearly all subjects had previous suicidal experiences (97%); 73% reported a suicide attempt and an additional 24% acknowledged a history of suicidal ideation. Suicide attempts were positively associated with histories of self-abuse (OR=3.5, p=0.02), with histories of trauma or abuse (OR=3.1, p=0.02), and with living alone (OR=2.4, p=0.06), but were inversely associated with family substance abuse (OR=0.4, p=0.04). Attempts were not statistically significantly associated with age, gender, violence and anger problems, arrests, homelessness, feelings of isolation, family history of attempted or completed suicide, or personal substance abuse. Conclusions: Several expected associations with attempts were not found, and only four statistically significant variables were identified. Associations suggest a contrast between factors influencing individuals to attempt suicide versus having thoughts or plans suicide without a history of an attempt.

#### REFERENCES:

1. Leverich GS, Altshuler LL, Frye MA, Suppes T, Keck PE, Jr., McElroy SL, et al. Factors associated with suicide attempts in 648 patients with bipolar disorder in the Stanley Foundation Bipolar Network. *J Clin Psychiatry* 2003; 64:506-15.
2. Borges G, Walters EE, Kessler RC. Associations of substance use, abuse, and dependence with subsequent suicidal behavior. *Am J Epidemiol* 2000; 151:781-9.

### No. 113

#### HOPELESSNESS AND SUICIDALITY THREE MONTHS POST-HOSPITAL DISCHARGE

John W. Goethe, M.D. *Institute of Living, Burlingame Center, 200 Retreat Avenue, Hartford, CT, 06106-3309*, Stephen B. Woolley, M.P.H., Deborah Piez, M.S.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to describe the associations between ratings of helplessness, history of suicide attempt and current suicidal feelings.

#### SUMMARY:

Objective: To determine the extent of suicidal feelings among former inpatients and the associations between self-rated suicidality, hopelessness and history of suicide attempt. Method: Consecutive consenting patients (n=217) were mailed a questionnaire one month after discharge. One to two months later they were interviewed by telephone. Each patient response/attribute, including if they returned the questionnaire and their rating of suicidality, was examined by calculating prevalence odds ratios (ORs) for high ( $\geq 9$ ) versus low score category on the Beck Hopelessness Scale (BHS). Results: 49% reported attempting suicide during their lifetime. Current "hopelessness" (BHS score  $\geq 9$ ) was present in 34% and was associated with history of attempt (RR=2.3, p<.001), lacking insurance for medications (RR=2.0, p=.01), ever being unable to get care (RR=1.6, p=.02), and having experienced "unbearable anxiety" (RR=1.9, p=.01). Among those returning a survey, rate of current "hopelessness" was 58.8% in patients reporting > "moderate" suicidality, compared to survey non-responders (38.7%) and to survey responders with < "moderate" suicidality (20.0%) ( $\chi^2=18.1$ , p<.001). Conclusions: These data are consistent with prior research linking "hopelessness" and suicidality. Subjects who did not respond to the mailed survey represent patients who may have been omitted in earlier studies and are individuals at high risk based on BHS score.

#### REFERENCES:

1. Kuo W-H, Gallo JJ, Eaton WW. Hopelessness, depression, substance disorder, and suicidality. *Soc Psychiatry Psychiatr Epidemiol* 2004; 39:497-501.
2. Beck AT, Weissman A, Lester D, Trexler L. The measurement of pessimism: the Hopelessness Scale. *J Consult Clinical Psychol* 1974; 42:861-865.

### No. 114

#### PARENT'S SOCIOECONOMIC STATUS, PSYCHIATRIC DISORDERS, AND SUICIDALITY AS RISK FACTORS OF SUBSEQUENT SUICIDE OF OFFSPRING: THE NORTHERN FINLAND 1966 BIRTH COHORT STUDY

Antti S. Alaräisänen, M.B. *University of Oulu, Department of psychiatry, P.O.Box 5000, Oulu, 90014, Finland*, Jouko Miettunen, Ph.D., Pirkko Räsänen, M.D., Matti K. Isohanni, M.D., Pirjo H. Maki, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participants should be able to know what we have found of association between parent's psychopathology and family's socioeconomic status and later risk of suicide among young people.

#### SUMMARY:

Objective: Suicides are one of the major problems in psychiatry. Social and family history is known to be associated with the risk of suicide. Influence of socio-demographic factors, e.g. socioeconomic status and family history of psychiatric disorders to later risk of suicide are under researched questions, which can be studied in our

birth cohort setting. Our aim was to analyze association between parent's psychopathology and family's socioeconomic status and later risk of suicide among young people in the Northern Finland 1966 Birth Cohort. Method: 11,017 cohort members who were alive at the age of 16 were followed up to the age of 35 years. Diagnostic and mortality data were based on national registers. Associations between family history variables and suicide were analysed by cross-tabulations and regression models. Results: A total of 58 suicides occurred during the follow-up period. Significant risk factors in the whole study sample for suicide were male gender, growing up in a single parent family, mother's depressed mood during pregnancy and a psychotic disorder of mother or father. Conclusions: There seems to be strong association between history of psychiatric disorders in the family and later risk of suicide of offspring. However, significant association between social class and suicide risk could not be found in our study population.

#### REFERENCES:

1. Gunnell D and Lewis G. Studying suicide from the life course perspective: implications to prevention. *Br J Psychiatry* 2005;187:206-208.
2. Hawton K, Sutton L, Haw C, Sinclair J, Deeks JJ. Schizophrenia and suicide: systematic review of risk factors. *Br J Psychiatry* 2005;187:9-20.

## SCIENTIFIC AND CLINICAL REPORT SESSION 39—CURRENT TRENDS AND CONTROVERSIES IN PSYCHIATRY

No. 115

### A REVIEW OF CHEMICAL CASTRATION AND ITS USE IN THE U.S. PENAL SYSTEM

Sara G. West, M.D. *University Hospitals, Psychiatry, 2608 Canterbury Road, Cleveland Heights, OH, 44118-4335*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to converse in an educated manner about the history and use of chemical castration in the United States. He or she will gain a better understanding of the diagnosis, pathophysiology and subsequent pharmacotherapy, as well as psychotherapy, of the sexual offender. The participant can then extrapolate that knowledge to better treat his or her own patients with paraphilias or other sex offenders who are not diagnosable by DSM criteria.

#### SUMMARY:

Objective: Chemical castration as a means of therapy for sexual offenders in the United States became popular in the mid-1990's following California's legislation approving such treatment. After a flurry of activity, eight other states approved castration, via various means, as a legitimate option for treating sexual offenders. This article serves to provide background information on the treatment of sex offenders, emphasizing chemical castration as one of the more promising forms of therapy in this field. Method: It has been almost ten years since the original legislation was passed in California, and this article examines how castration has been used in the participating states. Via interviews with state departments, it highlights the experience of 5 states that have legislated castration as an option for the treatment of sex offenders. Results: All states differ greatly in the way that they drafted and enforce their laws. The outcomes of their legislation is equally varied. Conclusions: With significant advances in medicine in the last several decades, temporary pharmaceutical castration without surgical intervention has been achieved. This is of particular importance when noting the increase in the rate of sexual offenses in recent years. States have taken advantage of this

new development, each in their own unique way. It appears that chemical castration may serve as an excellent means to control the behavior of sexual offenders and certainly deserves further exploration.

#### REFERENCES:

1. Scott CL, Holmerbg T: Castration of sex offenders: prisoners' rights versus public safety. *J Am Acad Psychiatry Law* 2003; 31:502-9.
2. Stone TH, Winslade WJ, Klugman CM: Sex offenders, sentencing laws and pharmaceutical treatment: a prescription for failure. *Behav Sci Law* 2000; 18:83-100.

No. 116

### ACUPUNCTURE AND COGNITIVE-BEHAVIOR THERAPY FOR PTSD

Michael Hollifield, M.D. *University of Louisville, Psychiatry and Behavioral Sciences, 501 E. Broadway, Suite 340, Louisville, KY, 40205, Nityamo Lian, Teddy Warner, Ph.D., Richard Hamerschlag, Ph.D.*

#### EDUCATIONAL OBJECTIVES:

1. To understand the rationale for using acupuncture for treating posttraumatic stress disorder.
2. To gain an appreciation of the use of a novel form of cognitive-behavioral therapy for treating posttraumatic stress disorder.
3. To understand the relative efficacy of acupuncture and cognitive behavioral therapy for treating posttraumatic stress disorder.

#### SUMMARY:

Objective: Posttraumatic Stress Disorder (PTSD) is associated with significant distress, impairment, and morbidity. Cognitive Behavioral Therapy (CBT) is effective for PTSD. However, most forms of CBT employ exposure to trauma content techniques, which may be associated with withdrawal from treatment. Acupuncture, which does not use exposure techniques, is effective for many of the symptoms that comprise PTSD. The objective of this study was to test the potential efficacy and acceptability of acupuncture for treating PTSD.

Method: People with PTSD were recruited from the community into a three-arm, prospective randomized controlled clinical trial. An empirically-derived acupuncture approach using 12 weeks of treatment delivered by one acupuncturist was compared to a novel, evidence-based CBT approach using 12 weeks of group treatment delivered by one therapist. Both treatments were compared to a wait-list control (WLC) condition. Repeated measures multivariate analysis of variance and effect size analyses (Cohen's d) were used to contrast group by time treatment effects for each treatment group to the control group and to each other on PTSD symptoms. Treatment effects for the secondary outcomes of depression, anxiety, global impairment, and satisfaction with care were also assessed. Results: Of the eighty-four participants randomized, 73 began and 61 completed the trial (16% withdrawal after beginning). There were no between-group differences in treatment completion rates. Acupuncture provided large treatment effects (Acupuncture vs. WLC:  $F(1,46)=11.04$ ;  $p<0.01$ ; Cohen's  $d=1.26$ ) similar to CBT (CBT vs. WLC:  $F(1,47)=12.74$ ;  $p<0.01$ ;  $d=1.41$ ) for PTSD and for all secondary outcome measures. Participants in the wait-list control group did not improve. The symptom reductions seen at the end of treatment were maintained at a 3-month follow-up assessment for both treatments. Participants in both treatment groups were satisfied with the care they received. Conclusions: This is the first known study of acupuncture for PTSD. Acupuncture and a novel form of CBT may be equally efficacious and acceptable treatment options for PTSD. This conclusion warrants cautious optimism given the preliminary

nature of this study. Larger trials with different design strategies are warranted to replicate and extend these findings.

#### REFERENCES:

1. Ehlers A, Clark DM, Hackmann A, McManus F, Fennell M: Cognitive therapy for post-traumatic stress disorder: development and evaluation. *Behav Res Ther* 2005;43(4):413-431.
2. Birch S, Hesselink JK, Jonkman FA, Hekker TA, Bos A: Clinical research on acupuncture. Part 1. What have reviews of the efficacy and safety of acupuncture told us so far? *J Altern Complement Med* 2004;10(3):468-80.

No. 117

### **PSEUDOSEIZURES: INTERACTION OF PAST TRAUMATIC STRESS AND CURRENT SUPPRESSION OF NEGATIVE AFFECTS**

Robin Berlin, M.D. *Washington, DC*, James L. Griffith, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will be able:

1. To describe how past traumatic stress and current suppression of negative affects may interact in precipitating pseudoseizures as Conversion Disorder;
2. To utilize this understanding to tailor therapeutic interventions for pseudoseizures.

#### SUMMARY:

Objective: To elucidate the pathogenesis of pseudoseizures that occur as Conversion Disorder. Method: 31 consecutive patients with pseudoseizures were evaluated by neurological evaluation, videotaped EEG telemetry, descriptive psychiatric diagnostic interview, narrative life history, Hamilton Depression Scale (Ham-D), Hamilton Anxiety Rating Scale (Ham-A), and Dissociative Experiences Scale (DES). Results: 10 pseudoseizure patients with Conversion Disorder were identified who had no co-morbid mood, anxiety, posttraumatic stress, or dissociative disorder by DSM-IV criteria, as well as Ham-D <10, Ham-A <10, and DES <15. However, (1) 9 of the 10 patients had a history of traumatic stress, as a child in 7 cases and an adult in 2 cases; (2) 7 of the 10 patients were currently involved in an intolerable life dilemma about which distress could not be openly expressed due to shame, guilt, or fear of retaliation. Conclusions: These findings suggest that pseudoseizures as a Conversion Disorder can arise through the interaction of: (1) past traumatic stress, as a distant risk factor, and (2) a dilemma in which overt protest and assertive coping feel prohibited, as the current precipitating factor. As a neurobiological hypothesis, we propose that pseudoseizures can be precipitated by excessive suppression of trauma-related emotional arousal by activation of anterior cingulate-prefrontal cortical systems for managing negative affects. These findings can help tailor therapeutic interventions for pseudoseizures.

#### REFERENCES:

1. Griffith JL, Polles A, Griffith ME: Pseudoseizures, families, and unspeakable dilemmas. *Psychosomatics* 1998; 39:144-153.
2. Griffith JL, Griffith ME: *The Body Speaks: Therapeutic Dialogues for Mind-Body Problems*. New York: Basic Books, 1994.

### **SCIENTIFIC AND CLINICAL REPORT SESSION 40—CULTURAL VARIATIONS IN PSYCHIATRIC ILLNESS**

No. 118

### **BPD AND CULTURES**

Bernadette M. Grosjean, M.D. *Harbor UCLA, Psychiatry, 1000 West Carson, box 497, Torrance, CA, 90509*

#### EDUCATIONAL OBJECTIVES:

- At the conclusion of the presentation, the participants should :
- 1) be familiar with the bio-psycho-social model of borderline personality disorder.
  - 2) be familiar with socio-cultural variations between Western and non-Western societies
  - 3) able to discuss how socio-cultural specificities may affect the appearance and/or the outcome of borderline personality disorder

#### SUMMARY:

Objective: 1) To explore why the prevalence of borderline personality disorder (BPD) appears to be different across cultures. 2) To identify characteristics of collectivist versus individualistic culture and consider how these features may influence the appearance and/or expression of borderline pathology. Method: 1) Examination of the available epidemiological data relative to BPD prevalence across Western and non-Western cultures; 2) the concepts of resilience and protective factors in various type of society in general and in preventing or causing BPD are presented; 3) the difference between collectivist, traditionalist and individualist society are examined. Results: Although there is a great need for further and larger epidemiological studies on the prevalence of BPD across the world, BPD seems more common in Europe and in the United States than in non-Western countries. Collectivist /traditional societies may hold specific characteristics which would help to prevent the development of BPD in some vulnerable individuals. Conclusions: By identifying and acknowledging features of traditional societies that may prevent or limit the development of BPD, Western societies may think of how to generate preventive programs and early treatment for at risk populations.

#### REFERENCES:

1. Paris J : *Nature and Nurture in Psychiatry*. Washington, DC, American Psychiatric Association Press, Inc. 1999.
2. Geert Hofstede: *Culture and organizations*. New York, Mc Graw-Hill. 1991.

No. 119

### **PATTERNS OF ANTIDEPRESSANT PRESCRIBING AND SUICIDE IN ISRAEL**

Dov Aizenberg, M.D. *Geha Mental Health Center, E, 1 Helsinki Street, Petah-Tikva, 49100, Israel, Yoram Barak, M.D.*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the association between suicide and exposure to antidepressant medications and the favorable effects of their utilization in primary care.

#### SUMMARY:

Objective: Depression accounts for the majority of deaths by suicide. However, the effects of antidepressants are controversial; on the one hand they decrease the incidence of death by suicide, as reflected in epidemiological studies, and on the other hand, they increase the risk of impulsive acts, including suicide. In 1998, primary care physicians in Israel were not allowed to prescribe selective serotonin reuptake inhibitors (SSRIs) and in 1999 this prohibition was lifted. We therefore evaluated the association between patterns of antidepressant prescribing and the rate of death by suicide in Israel in 1998 compared with 2002. Method: Data regarding deaths by suicide were obtained from the Central Bureau of Statistics (CBS). We analyzed rates of death by suicide in Israel in 1998 (prior to the change in practice) versus 2002 (the most recent CBS publication of this data). The association between numbers and trends of antidepressants prescription and suicide was tested for said period. In addition, the specialty of the physicians prescribing antidepressant

medications was considered as a variable in the statistical procedure. Annual rates of antidepressants prescriptions were computed from the Intercontinental Marketing Services (IMS) database. The IMS data covers 3 of 4 HMOs in the country encompassing 46% of all citizens. The change from 1998 to 2002 was the primary outcome measure as in 1998 primary care physicians were not allowed to prescribe SSRIs and by 2002 this prohibition was removed. Results: Prescribing of all antidepressants was increased 2.6-fold between 1998 and 2002. This increase was significantly more pronounced for the SSRIs. A shift in prescription practices was noted with a 1.37-fold increase in prescribing by primary care physicians. While the concomitant decrease in overall national rates of suicide did not reach significance (17 to 14 per 100,000), incidence decreased significantly in men aged 55 to 74 years (33 to 22 per 100,000;  $p=0.029$ ).

Rates of suicide changed amongst the population corresponding to the reported patterns. Conclusions: The present study reflects an association between antidepressants use and suicide in almost half of the population in Israel. The large absolute numbers of antidepressants prescriptions contribute to the validity of our findings. The increase in antidepressant prescribing in primary care may be associated with decreased suicide rates in elderly men.

This work was supported by an unrestricted grant from H Lundbeck A/S.

#### REFERENCES:

1. Bruce ML, Ten Have TR, Reynolds CF, Katz II, Schulberg HC, Mulsant BH, Brown GK, McAvay GJ, Pearson JL, Alexopoulos GS. Reducing suicidal ideation and depressive symptoms in depressed older primary care patients: A randomized controlled trial. *JAMA*.
2. Grunebaum MF, Ellis SP, Li S, Oquendo MA, Mann JJ. Antidepressants and suicide risk in the United States, 1985-1999. *J Clin Psychiatry* 2004;65:1456-1462.

#### No. 120

### PREVALENCE OF PMDD AMONG WOMEN IN A PRIMARY CARE OUTPATIENT SETTING IN THE UNITED ARAB EMIRATES

Ossama T. Osman, M.D. *United Arab Emirates University, Psychiatry and Behavioral Sciences, P.O. Box 17666, Al-Ain, 000000, United Arab Emirates*, Diaa Rizq, M.D., Sufyan Sabri

#### EDUCATIONAL OBJECTIVES:

1- To describe an original study of the prevalence of Premenstrual Dysphoric Disorder among women in a representative city from the United Arab Emirates.

2- To familiarize the audience with the severity and types of associated disabilities among women in this Gulf country which has not been previously reported.

3- To describe for the first time the sociodemographic characteristics of this women population in primary care outpatient settings.

#### SUMMARY:

Objective: There has not been any published work from the United Arab Emirates [UAE] about the prevalence and impact of the premenstrual dysphoric disorder [PMDD] in adult women in the reproductive age group. The PMDD is reported to be a prevalent disorder which could be disabling and leads to significant impairment in family life, home responsibilities, work and social functioning. It could therefore, represent a significant public health problem but it is also a treatable condition.

To determine the prevalence, sociodemographic characteristics and degree of functional impairment as a result of PMDD in adult women in the primary care setting in Al-Ain. Method:

Adult women aged 18-50 years were selected randomly from the primary health care clinics of Al-Ain city ( $n=204$ ) and interviewed about inappropriate, cyclic and recurrent premenstrual dysphoric symptoms in the previous 12 months using a structured and pre-tested questionnaire. Data were analyzed using SPSS software. The Student t test was used to find the differences between means among those who screened positive for PMDD. The chi-square test compared frequencies between PMDD and frequency of associated socio-demographic and economic factors. Results: The results were analyzed using the appropriate statistical tests and a significance level ( $\alpha$ ) of  $< 0.05$  was used. A high prevalence of PMDD is found in our adult women population (8.3%- 23.5%). This condition also led to severe impairment in the level of functioning of affected women with significant disability in work/school, at home, and in their social role.

There was a statistically significant positive correlation between the presence of PMDD and the educational level and socio-economic level of affected women.

Women with PMDD tended to be more single (40.7%) and had more difficulty at work (85.7%) than those women without the disorder (16.9% and 33.3% consecutively). Women with PMDD tended to have higher household incomes. Women with PMDD tended to use sedative hypnotics more often than women without the disorder (16.7% vs 3.9%). Conclusions: PMDD is a prevalent disorder among women attending primary care outpatient clinics in the city of Al-Ain in the Gulf country of the United Arab Emirates.

The disorder tends to be more prevalent among women who with higher educational background who are single and of higher socio-economic levels.

The study emphasize the need for greater awareness, recognition and consequently management of this treatable condition among women in the Gulf city of Al-Ain.

#### REFERENCES:

1. Steiner M, Macdougall M, Brown E, The Premenstrual Symptom Screening Tool (PSST) for clinicians. *Arch Women Mental Health* 2003; 6:203-209.
2. Leon AC, Olfson M, Portera L, Farber L, Sheehan DV. Assessing Psychiatric impairment in primary care with the sheehan disability scale. *International J of Psychiatry in Medicine* 1997; 27(2):93-105.

### SCIENTIFIC AND CLINICAL REPORT SESSION 41—LIFESTYLE ISSUES IN MENTAL HEALTH

#### No. 121

### LIFESTYLE ISSUES IN MENTAL HEALTH: SOCIAL SUPPORT, DIET, FITNESS, AND RECREATION

Henry T. Chuang, M.D. *University of Calgary, Psychiatry, 1100 - 8th Ave. S.W., # 1801, Calgary, AB, T2P 3T9, Canada*, Scott B. Patten, M.D.

#### EDUCATIONAL OBJECTIVES:

People with chronic mental illness are known to have higher physical comorbidity in which their lifestyles may play a role. This study will endeavor to elucidate data of these groups of patients, i.e. Schizophrenia, Bipolar disorder, and the Anxious/Depressed. Data would include demographic and clinical information, social support, recreational and occupational pursuits, illicit drug use, diet and exercise. Our hypothesis is that people with Schizophrenia would tend to lead a more unhealthy lifestyle compared to the other two groups.

**SUMMARY:**

**Objective:** The purpose of this study is to evaluate the lifestyle needs among three diagnostic groups, namely: Schizophrenia, Bipolar Disorder, and Anxiety/Depression. These needs include social support, dietary habits, use of alcohol or street drugs, exercise, and recreational pursuits. In addition, the clinical and laboratory parameters of these three groups are also compared, including: weight, Basal Metabolic Index (BMI), lipids, glucose levels. **Method:** Patients attending an urban Community Mental Health Center were given questionnaires/instruments in order to measure demographic data, social support, dietary habits, fatty food intake, physical and recreational activities, and addiction behavior. Furthermore, weight, BMI, and other laboratory data from their charts were also obtained. **Results:** Despite a lack of demographic social support among patients with Schizophrenia, they did not differ from the other two groups in their perceived degree of social satisfaction. Predominant engagement in sedentary activities was noted in at least 40% of all groups. Exercise frequency of less than once weekly was notable among the Bipolar (30.0%) and the Anxious/Depressed groups (24.59%) compared to the Group with Schizophrenia (13.33%). No significant difference was noted in their fatty food intake and dietary habits. In addition, 46.3% of the entire group had a cholesterol level over 201 mg/dL, with no significant differences between groups ( $p=0.539$ ); 65.5% of the total group could be described as overweight (BMI =or greater than 25) and 38% obese (BMI=or greater than 30.0). **Conclusions:** Unhealthy lifestyles are not restricted to any one diagnostic group. The need to educate all patients regardless of their diagnoses regarding lifestyle issues including diet, fitness, recreational activities is underscored.

**REFERENCES:**

1. Marder SR, Essock SM, Miller AL, Buchanan RW, Casey DE, et al: Physical health monitoring of patients with schizophrenia. *Am J Psychiatry* 2004, 161: 1334-1339.
2. Elmslie JL, Mann JJ, Silverstone JT, Williams SM, Romans SE: Determinants of overweight and obesity in patients with bipolar disorder. *J Clin Psychiatry* 2001; 62(6): 486-493.

**No. 122****ALCOHOLISM IN SCHIZOPHRENIA: SYSTEMATIC REVIEW 2000-2004**

Johanna Koskinen, M.B. *University of Oulu, Department of Psychiatry, Peltolantie 5, Oulu, 90220, Finland*, Jouko Miettunen, Ph.D., Erika Lauronen, M.D., Pekka Laine, Dr. Med. Sc., Hannu J. Koponen, M.D., Matti K. Isohanni, Dr. Med. Sc.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation the participant should be able to recognize the prevalence of alcohol abuse/dependence in schizophrenia patients as well as the cultural and gender differences.

**SUMMARY:**

**Objective:** Our aim was to review systematically studies concerning alcohol abuse/dependence in patients with schizophrenia. To update previous reviews we included studies published in 2000-2004. **Method:** Articles were searched by using electronic databases (PsycINFO, PubMed, Ovid and Web of Science) and manual literature search. The studies reporting rates of lifetime alcohol or cannabis abuse/dependence in schizophrenia were analysed. The search was done by using words "schizophrenia, psychos\* and psychotic" to find studies on schizophrenia and "alcoholism", "alcohol abuse", "alcohol dependence", "substance abuse" and "substance dependence". We included only published articles written in English. **Results:** The database search gave in total 211 articles in 2000-2004. Preliminary results reveal large range of rates in different samples of schizophrenia patients. The combined estimate for lifetime alcohol

use disorder was 18.5%. Prevalence rates of alcohol abuse/dependence vary from 7% to 63%. **Conclusions:** When comparing to earlier reviews our results were quite similar, giving a large range of abuse rates in different studies. The cultural differences should be taken into account when comparing studies on alcohol abuse in schizophrenia studied in different countries. More detailed results will be reported later.

**REFERENCES:**

1. Cantor-Graae E, Nordstrom LG, McNeil TF: Substance abuse in schizophrenia: a review of the literature and a study of correlates in Sweden. *Schizophr Res* 2001; 48:69-82.
2. Mueser KT, Yarnold PR, Levinson DF, Singh H, Bellack AS, Kee K, Morrison RL, Yadamal KG: Prevalence of substance abuse in schizophrenia: demographic and clinical correlates. *Schizophr Bull* 1990; 16: 31-56.

**No. 123****CIGARETTE SMOKING AMONG PSYCHIATRIC OUTPATIENTS: A MATCHED CASE-CONTROL STUDY IN BUCARAMANGA, COLOMBIA**

Adalberto Campo-Arias, M.D. *Universidad Autónoma de Bucaramanga, Línea de Salud Mental, Calle 157 No 19-55, Cañaveral Parque, Bucaramanga, 57 7, Colombia*, Luis A. Díaz-Martínez, M.S., German E. Rueda-Jaimes, M.D., Mauricio Rueda-Sánchez, M.D., Daniel Farelo, M.S., Francisco J. Díaz, Ph.D., Jose de Leon, M.D.

**EDUCATIONAL OBJECTIVES:**

At the end of this presentation, participants should be able to know the prevalence of cigarette smoking among psychiatric outpatients according diagnosis.

**SUMMARY:**

**Objective:** To compare the prevalence of cigarette smoking in patients with psychotic (schizophrenia and schizoaffective disorder) and mood (bipolar and major depressive disorder) disorders with paired controls from the general population. **Method:** This paired case-control study included 73 schizophrenia patients (DSM-IV schizophrenia or schizoaffective disorder) and 111 patients with mood disorders (DSM-IV bipolar or major depressive disorders). These patients were matched each with 2 controls from the general population. Mantel-Haenszel odds ratios (ORs) for current cigarette smoking, which were adjusted for gender, age and area of residence, and their 95% confidence intervals (CIs) were computed. The Cochran test examined the association between current cigarette smoking and psychiatric diagnoses when comparing patients with matched controls. **Results:** Prevalences of current cigarette smoking were 15% for psychiatric patients and 11% for control (adjusted Mantel-Haenszel OR= 1.5, 95%CI, 0.79-2.8). Cigarette smoking prevalence were 26% for schizophrenia patients and 10% for their matched controls (adjusted Mantel-Haenszel OR=3.1, 95%CI, 1.4-6.8); and 7% for patients with mood disorders and 12% for their matched controls (adjusted Mantel-Haenszel OR=0.62; 95%CI, 0.28-1.4). **Conclusions:** The global prevalence of cigarette smoking is comparable in psychiatric patients and matched controls. Cigarette smoking is strongly associated with psychotic disorders; however it is independent of mood disorders.

**REFERENCES:**

1. Hughes JR, Hatsukami DK, Mitchell JE, Dahlgren LA. Prevalence of smoking among psychiatric outpatients. *Am J Psychiatry* 1986; 993-997.
2. Üçok A, Polat A, Bozkurt O, Meteris H. Cigarette smoking among patients with schizophrenia and bipolar disorders. *Psychiatr Clin Neurosc* 2004; 58: 434-437.

## SCIENTIFIC AND CLINICAL REPORT SESSION 42—STUDIES IN ADDICTION

No. 124

### SUBSTANCE ABUSE IN BIPOLAR DISORDER

E. Sherwood Brown, M.D. *University of Texas Southwestern Medical Center, Department of Psychiatry, 5323 Harry Hines Boulevard, Mail Code 8849, Dallas, TX, 75390-9070*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will 1) understand the impact of comorbid psychiatric disorders on the course and treatment of patients with bipolar disorder and 2) be familiar with treatment options for this dual-diagnosis population.

#### SUMMARY:

**Objective:** Bipolar disorder frequently co-occurs with substance abuse, anxiety, and other psychiatric disorders. Notably, findings from naturalistic studies indicate that over 60% of bipolar patients also meet criteria for a lifetime diagnosis of substance abuse or dependence. The presence of comorbid psychiatric disorders is associated with poor illness and treatment outcomes in patients with bipolar disorder. However, preliminary evidence suggests that treatment with lithium, atypical antipsychotics and anticonvulsants may be associated with improved outcomes in this dual-diagnosis population. **Method:** A 12-week, open-label quetiapine add-on therapy study in 17 outpatients with bipolar disorder and cocaine dependence, and a controlled 12-week study of 100 patients with bipolar disorder and alcohol dependence. **Results:** Significantly improved symptoms were observed using the Young Mania Rating Scale, Hamilton Depression Rating Scale, and Brief Psychiatric Rating Scale, and Cocaine Craving Questionnaire. **Conclusions:** This session will discuss these findings together with results from published studies. New data from a recent randomized, double-blind, placebo-controlled study of quetiapine in patients with bipolar disorder and substance abuse or dependence will also be presented to provide a current view of treatment options for this patient group.

Funding for this research was provided by AstraZeneca.

#### REFERENCES:

1. Kessler RC, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. *Arch Gen Psychiatry* 1994; 51:8-19.
2. Brown ES, et al. Quetiapine in bipolar disorder and cocaine dependence. *Bipolar Disord* 2002; 4:406-411.

No. 125

### SUBSTANCE-RELATED DISORDERS AND DUAL DIAGNOSIS IN A RANDOM NATION-WIDE SAMPLE OF 998 PRISONERS: PREVALENCES AND RISK FACTORS

Michael Lukaszewicz, M.D. *INSERM (Institut National pour la Santé et la Recherche Médicale), Unit 669/Maison de solenn, 97 Boulevard de Port Royal, Paris, 75679 Paris cedex 14, France, Isabelle Gasquet, Ph.D., Michel Reynaud, Bruno Falissard*

#### EDUCATIONAL OBJECTIVES:

At the end of the presentation, participants will have a better knowledge of substance-related disorders and dual diagnoses prevalence in prison.

They should also be able to discuss the risk factors associated with those diagnoses in prisons (suicidal risk, comorbid psychiatric diagnoses, psychopathology assessed by the clinician version of

Cloninger's TCI, childhood trauma, justice status, socio-demographic status) and risk factors in prison.

They should also be made sensitive to the specific methodological difficulty associated to prevalence studies in prison.

A special emphasis will be put on the necessity to recognize and take in charge specifically dual diagnosis in prison.

#### SUMMARY:

**Objective:** Most data concerning substance-related disorders in prison are limited to incoming prisoners. However, there is evidence that drug use in prison is frequent and recent studies reported that more than 25% of prisoners initiated use in prison. For alcohol, data are scarce. Prison is also an ideal setting to study dual diagnosis as prevalence of both psychiatric and substance disorders are expected to be high. The aim of the study is to assess substance-related disorders and dual diagnoses prevalences and risk factors in a nationwide randomized sample of french prisoners, convicted to short or long term sentences. **Method:** selection of population :

a stratified random strategy was used to select 1) 23 prisons among the three types of prison in France, differing by the length of sentence and security level 2) then 998 prisoners (among them 100 women and 100 men's from oversea's department.

data collection and diagnoses procedure:

Each prisoner was interviewed by two clinicians. Diagnoses were collected according to a semi-structured procedure validated in a previous study. One of the clinician uses a structured clinical interview (MINI plus v 5.0), the second one, more experienced, completed the procedure with an open clinical interview. The interview continue with the clinical version of the TCI (Temperament and Character Inventory) and various justice, socio-demographic and childhood history questions. At the end of the interview both clinician met and conclude with a consensual list of diagnosis. All the Cohen's Kappa estimating interraters disagreement on diagnosis assessment ranged from good to excellent. Consensual diagnosis were thus used in the analysis. Consensual diagnosis were grouped in 9 categories (current and lifetime mood disorder, current and lifetime anxiety disorder, current and lifetime psychosis disorder, alcohol abuse/dependence in the last 12 months, drug abuse/dependence in the last 12 months). Prisoners having a substance related disorder and a current psychiatric diagnoses were grouped in a "dual diagnoses" category. **Statistical analysis:** Logistic regression were used to study the risk factors associated with 1) drug abuse/dependence (12m) 2) alcohol abuse/dependence 3) both alcohol and drug abuse/dependence 4) dual diagnosis. Adjustment on socio-demographic, justice, co-morbid psychiatric disorders, suicide risk and history, TCI and childhood history were realized. **Results:** 35.17% of prisoners had either an alcohol or drug abuse/dependence in the last 12 months, 18.44% for alcohol and 27.88% for drug. 26.25% had a dual diagnosis. Current mood disorder was associated to alcohol, while current psychotic disorder to both alcohol/drug use. Low socio-demographic status and age were negatively correlated to abuse/dependence. Crime against property was associated to drug while crime against person to alcohol. Being incarcerated in an overseas department was strongly associated to drug. Novelty seeking, reward dependence, low self directedness and low transcendence were also significant. Trauma, separation and ill treatment in childhood are associated to drug abuse/dependence. A significant suicidal risk was associated to dual diagnoses (OR = 1.63) **Conclusions:** Prevalence of alcohol and drug abuse/dependence is very high in general prisoners. Dual diagnoses prevalence is also high and are associated to a suicidal risk.

#### REFERENCES:

1. Abram, KM, Teplin LA, Mc Clelland GM, Dulcan MK: comorbidity of severe psychiatric disorders and substance use disorders among women in jail. *Am. J. Psychiatry* 2003; 160(5):1007-10.
2. Brooke D, Taylor C, Gunn J, Maden A: substance misuse as a marker of vulnerability among male prisoners on remand. *Br J Psychiatry* 2000; 177:248-51.

No. 126

**STROOP PERFORMANCE IN PATHOLOGICAL GAMBLERS**

Pinhas N. Dannon, M.D. *Tel Aviv University, Rehovot Community Mental Health & Rehabilitation Clinic, Remez St. 80, Rehovot, 76449, Israel*

**EDUCATIONAL OBJECTIVES:**

1. The early diagnosis of Pathological gamblers
2. The credibility and availability of the Stroop test in the diagnosis of pathological gambling

**SUMMARY:**

**Objective:** Pathological gambling (PG) is a relatively prevalent psychiatric disorder, which typically leads to severe family, social, legal, and occupational problems and is associated with a high rate of suicide attempts. Understanding the neurobiological basis of PG is a current focus of research, and emerging data has demonstrated that pathological gamblers may have impaired decision-making because of an inability to inhibit irrelevant information. **Method:** The Stroop Color-Word task is an accepted neurocognitive test used to assess interference control. In this study, we examined pathological gamblers by using the Stroop Color-Word task. The "reverse" variant of the Stroop Color-Word task was administered to a cohort of medication-free pathological gamblers (N=62) and a cohort of age-matched controls (N=83). In the "reverse" variant of the Stroop test, subjects are asked to read the meaning of the word rather than name the ink color. The "reverse" Stroop task was chosen because it highly discriminates ability to inhibit interference in a population of psychiatric patients. **Results:** In our study, performance on the "reverse" Stroop task in the pathological gamblers was significantly slower and less accurate than in the healthy subjects. A new finding in our study was that for pathological gamblers, the average reaction time in the neutral condition (where the color-names are displayed in black letters) was slower than the average reaction time in the incongruent condition (where the meaning of the color name and the color of the printed letters are different). **Conclusions:** This controlled study extends previous findings by showing that Stroop performance is impaired in a sample of medication-free pathological gamblers.

**REFERENCES:**

1. Shaffer, H.J., Hall, M.N., Vander Bilt, J., 1999. Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *American Journal of Public Health* 89, 1369-1376.
2. Roe, W.T., Wilsoncroft, W.I., Griffiths, R.S., 1980. Effects of motor and verbal practice in the Stroop Task. *Perception and Motor Skills* 50, 647-50.

**SCIENTIFIC AND CLINICAL REPORT SESSION 43—COMPLICATION OF TREATMENTS IN PSYCHIATRIC DISORDERS**

No. 127

**ARMODAFINIL IMPROVES FATIGUE IN PATIENTS WITH EXCESSIVE SLEEPINESS DUE TO OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYNDROME**

Steven Hull, M.D. *Vince and Associates Clinical Research/somni-Tech, Inc., 6600 College Boulevard, Suite 330, Overland Park, KS, 66211*, Alan Lankford, Ph.D., Bradley D. Vince, D.O., Gwendolyn E. Niebler, D.O., Sanjay Arora, Ph.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to recognize the effects armodafinil has in reducing fatigue in patients with obstructive sleep apnea/hypopnea syndrome.

**SUMMARY:**

**Objective:** To evaluate the effect of armodafinil, a wake-promoting agent that is the R-enantiomer of racemic modafinil, on fatigue in patients with residual excessive sleepiness (ES) due to obstructive sleep apnea/hypopnea syndrome (OSA/HS). **Method:** This analysis combined two 12-week, multicenter, randomized, double-blind, placebo-controlled studies. Patients received armodafinil 150 mg (n=264) or 250 mg/day (n=131) or placebo (n=263) as adjunct to nCPAP. Average and worst fatigue scores and the scores on 6 interference items (general activity, mood, walking ability, normal work, relations with others, and enjoyment of life) on the 9-item Brief Fatigue Inventory were analyzed. Scores were based on an 11-point scale (0-10), with higher scores indicating greater fatigue severity or impact. **Results:** Patients reported moderate-to-severe fatigue at baseline. Both doses of armodafinil significantly reduced average fatigue scores compared with placebo at final visit (mean±SD change from baseline, -1.2±2.2, -1.3±2.3, and -0.6±2.1 for 150 mg, 250 mg, and placebo, respectively;  $P<.01$ ). Worst fatigue scores were significantly ( $P=.0044$ ) reduced with the 150-mg dose of armodafinil compared with placebo. Armodafinil showed improvement in all 6 interference items. **Conclusions:** Armodafinil reduced fatigue in patients with residual ES due to OSA/HS.

**Funding Source:** The research was sponsored by Cephalon, Inc.

**REFERENCES:**

1. American Academy of Sleep Medicine: *The International Classification of Sleep Disorders, Second Edition: Diagnostic and Coding Manual*. Westchester, IL, American Academy of Sleep Medicine, 2005.
2. Mendoza TR, et al: The rapid assessment of fatigue severity in cancer patients. Use of the Brief Fatigue Inventory. *Cancer* 1999; 85:1186-1196.

No. 128

**EFFICACY, TOLERABILITY, AND SAFETY OF ONCE-DAILY ATOMOXETINE HYDROCHLORIDE VERSUS PLACEBO IN TAIWANESE CHILDREN AND ADOLESCENTS WITH ADHD**

Susan Shur-Fen Gau, M.D. *National Taiwan University Hospital & College of Medicine, Department of Psychiatry, No. 7, Chung-Shan South Rd, Taipei, 100, Taiwan Republic of China*, Yu-Shu Huang, M.D., Wei-Tsuen Soong, M.D., Miao-Chun Chou, M.D., Phil Lee, M.D., Albert J. Allen

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to recognize that like the Western population, once-daily atomoxetine is an effective, well-tolerable, and safe treatment for the Chinese children with ADHD in Taiwan.

**SUMMARY:**

**Objective:** Although atomoxetine is the only non-controlled substance currently approved by the Food and Drug Administration for use in the treatment of attention-deficit/hyperactivity disorder (ADHD), the majority of studies have been conducted in the US, and there is lack of such information in the Asian population, in which similar to others ADHD is anticipated to be common [e.g., 7.5% of school-age children in Taiwan]. In view of this, this study was conducted to assess the efficacy, tolerability, and safety of the once-daily atomoxetine compared with placebo in the treatment of pediatric patients with ADHD in Taiwan. **Method:** One hundred and

six 6- to 15-year old patients with DSM-IV ADHD confirmed by the Chinese version of the Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version, were randomized to atomoxetine once daily ( $n = 72$ , 65 boys and 7 girls) and placebo once daily ( $n = 34$ , 29 boys and 5 girls) in a double-blinded, placebo-controlled, randomized, 6-week treatment clinical trial. The primary endpoint measure was the ADHD Rating Scale-IV Parents Version: Investigator Administered and Scored (ADHDRS-IV-Parent: Inv) scale. The secondary endpoint measures included the Clinical Global Impressions-ADHD-Severity (CGI-ADHD-S) scale, and Chinese versions of the Conner's Parent Rating Scale-Revised: Short Form (CPRS-R:S), and Conner's Teacher Rating Scale-Revised: Short Form (CTRS-R:S). Data were analyzed on an intent-to-treat basis and a last-observation-carried-forward approach with a repeated-measures mixed model using the MIXED procedure in SAS 9.1. A mixed model with time-dependent variable was further used to examine the slopes of changes over time between the two treatment groups controlling for the repeated measures within the same subject. Effect sizes were calculated for the four outcome measures. Results: There was no significant difference between the two groups in terms of demographics and baseline measures. Outcomes among atomoxetine-treated patients were superior to those of the placebo treatment group as assessed by investigator, parent, and teacher ratings. The treatment effect sizes for the ADHDRS-IV-Parent: Inv (0.79), CGI-ADHD-S (0.81), CPRS-R:S (0.65), and CTRS-R:S (0.44) were similar to those observed in previous atomoxetine studies. Significantly higher proportion of subjects in the atomoxetine group (73.6%) than the placebo group (38.2%) had greater than 25% reduction in total score of the ADHDRS-IV-Parent: Inv at the end of study. Compared to the placebo group, the atomoxetine group showed a significantly greater slope of reductions in all the ADHD symptoms assessed by the four measures over time. Anorexia as the most frequent reported side effect was more prevalent in the atomoxetine group (36.6%) than the placebo group (14.7%). Three (4.2%) and five (14.7%) had early discontinuation in the atomoxetine and placebo groups, respectively. Discontinuation due to serious adverse events was very low (less than 1%), and no serious safety concerns were observed. Conclusions: Like the findings of previous atomoxetine studies, once-daily atomoxetine is an effective, well-tolerable, and safe treatment for the Chinese children and adolescents with ADHD in Taiwan.

#### REFERENCES:

1. Gau SSF, Chong MY, Chen TH, Cheng ATA: A three-year panel study of mental disorders among adolescents in Taiwan. *Am J Psychiatry* 2005; 162:1344-1350.
2. Michelson D, Allen AJ, Busner J, et al: Once-daily atomoxetine treatment for children and adolescents with attention deficit hyperactivity disorder: a randomized, placebo-controlled study. *Am J Psychiatry* 2002; 159: 1896-901.

No. 129

#### MEDICATION NONADHERENCE IN BIPOLAR DISORDER: THE ROLE OF PATIENTS TREATMENT PERCEPTIONS

Rob Horne *University of Brighton, Centre for Health Care Research, Rm 257, Mayfield House, Falmer, Brighton, BN1 9PH, United Kingdom*, Jane Clatworthy, Rhian Parham, Tim Rank, Richard Bowskill

#### EDUCATIONAL OBJECTIVES:

- At the conclusion of this presentation, the participant should:
- recognise the importance of patients' perceptions of treatment, over and above clinical and demographic factors, in predicting adherence to medication.
  - understand ways in which patients' maladaptive perceptions can be elicited and addressed.

#### SUMMARY:

Objective: Patients' beliefs about medication have been associated with adherence in a number of chronic conditions. In particular, high concerns about treatment and low perceived personal need for treatment have been associated with nonadherence. The aim of this study was to use validated questionnaires to explore the relationship between treatment perceptions and reported adherence in people diagnosed with bipolar disorder. Method: 223 members of the Manic Depression Fellowship completed a postal questionnaire booklet. It included validated measures of their beliefs about treatment (Beliefs about Medicines Questionnaire) and adherence to medication (Medication Adherence Report Scale), in addition to demographic (age, gender, ethnicity, marital status) and clinical (Beck Depression Inventory, Altman Self-rating Mania Scale) variables. Multivariate analyses were conducted. Results: Logistic regression revealed that reported nonadherence was associated with higher concerns about treatment (OR = 2.02; 95% CI: 1.31-3.13), and lower perceived personal need for treatment (OR = .64; 95% CI: .42-.97). Demographic and clinical variables were not associated with reported adherence to medication. Conclusions: This study has identified key treatment perceptions that could be elicited and addressed in interventions to improve adherence to medication in bipolar disorder.

This research was supported by an unrestricted educational grant from AstraZeneca.

#### REFERENCES:

1. Horne R, Hankins M, Weinman J: The Beliefs about Medicines Questionnaire: the development and evaluation of a new method for assessing the cognitive representation of medication. *Psychol Health* 1999; 14:1-24.
2. Horne R: Treatment perceptions and self-regulation In *The Self-regulation of Health and Illness Behaviour* edited by Cameron LD, Leventhal H, London, Routledge Taylor & Francis Group, 2003, pp138-153.

#### SCIENTIFIC AND CLINICAL REPORT SESSION 44—THERAPEUTIC SOLUTIONS FOR CAREGIVING FAMILIES

No. 130

#### SPIRITUALITY AND RECOVERY FROM DEPRESSION

Caroline B. Williams, M.D. *NYU School of Medicine, Psychiatry, 126 East 36th Street, Apt. #3, New York, NY, 10016*, Eric D. Peselow, M.D., Barbara Ortlowski, Ph.D.

#### EDUCATIONAL OBJECTIVES:

To assess depressed patients respective orientation to spirituality, their views of the importance of spirituality in their lives and by objective measure, whether or not spiritual beliefs led to better response in the acute treatment of depressive illness.

#### SUMMARY:

Objective: Until recently minimal attention has been paid to the role of spirituality in psychiatric illness. While there has been much work done with addiction medicine, recovery from other Axis I disorders. It is the purpose of this report to examine the attitudes of acute depressed patients with regard to spirituality and to see whether these attitudes have any relationship to response to treatment with selective serotonin reuptake inhibitor response (SSRI) in alleviating depressive symptoms. Method: To date, 37 patients have been treated for acute depression over an 8 week course. Patients involved in this trial signed voluntary consent for treatment of depression in a naturalistic setting and for the collection of clinical data. The 37 patients were treated with one of three SSRI's including escitalopram



(N=16), sertraline (N=13) and paroxetine (N=8) with the choice being made on an open basis on clinical grounds as opposed to random assignment. All patients prior to receiving medications were rated with the Montgomery Asberg Depression Rating Scale (MADRS), the Beck Hopelessness Scale (BHS) and a 7 item religious and spirituality orientation scale as formulated by Goldfarb et al rated on a 5 point scale with 1=strongly agree and 5= strongly disagree with the lower score indicating greater spirituality. In addition the question of whether the patient believed in God or a universal spirit was asked on a Yes/No basis. Results: 29 patients believed in God or a universal spirit and 8 did not. The average improvement in MADRS score was 57.2% for those who believed in God or a universal spirit and 26% for those who did not ( $p<.008$ ). With respect to Beck Hopelessness Scale the results were similar; Overall 24 of the 37 patients responded to SSRI's with a 50% reduction in their depressive symptoms and 13 did not. With respect to the 7 item religious and spirituality orientation scale the average score for the responders (Lower number better) was 16.33 vs 25.38 for the non-responders ( $p<.002$ ) Conclusions: It did appear that greater spiritual belief was associated with a better antidepressant response in acute depression. Other subanalysis involving degree of depression and hopelessness along with cognitive distortions and personality traits vs. religious and spirituality orientation will be presented

#### REFERENCES:

1. Dyce JA- Factor structure of the Beck Hopelessness Scale. Clin Psychol. 1996.
2. Goldfarb LM, Galanter G, McDowell D, Lifshutz H, Dermatis H. Medical student and patient attitudes toward religion and spirituality in the recovery process. Am J Drug Alcohol Abuse. 1996 Nov;22(4):549-61.

#### No. 131

### DEPRESSION AND CAREGIVER BURDEN IN FAMILIES OF PEOPLE WITH SCHIZOPHRENIA

Lawrence Haber, Ph.D. *The Institute of Living, Family Resource Center, 200 Retreat Avenue, Hartford, CT, 06106*, Julie Robison, Ph.D., Kathy Kellett, M.A., Cynthia Gruman, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation participants will be able to discuss the role of family caregivers in influencing outcomes for patients with Schizophrenia. Be able to identify the risk factors for both depression and burden based upon patient characteristics and characteristics of the caregiver. Be able to identify the type of information and support that a family caregiver needs in order to make a positive contribution to the patient's treatment.

#### SUMMARY:

Objective: Relatives' involvement as caregivers for people with schizophrenia takes a significant toll on their own well-being and mental health. This report investigates a wide array of family and patient characteristics and illness experiences to identify factors that place families at risk for high levels of caregiver burden and depression. This study identifies characteristics and experiences that correlate with family well-being, which can strongly influence ongoing effective family involvement. Method: Study participants were family members of patients with schizophrenia, including schizophrenia, schizoaffective disorder or psychosis NOS, who were asked to complete the study questionnaire. The survey instrument for the family member included structured items and scales as well as open-ended questions, addressing both patient and family member experiences. Data was collected from 135 caregivers. Clinical data from medical records of 95 patients paired with family respondents were abstracted. The dependent variables in the analysis are two indicators of psychological well-being: caregiver burden, indicated by the Zarit Burden

Interview (ZBI) and symptoms of depression, assessed with the 10-item Center for Epidemiological Studies-Depression (CES-D) scale

Results: The analytic approach of this study involved several stages. In the first stage, descriptive statistics were run, including measures of central tendency and frequency distributions for each dependent and independent variable. Then bivariate relationships between each of the two dependent variables, caregiver burden and symptoms of depression, and the family and patient characteristics were examined using Pearson correlations, t-tests and one-way ANOVAs. A hierarchical multiple regression was used to determine the level of influence the variables had on explaining the variance by using an intentional sequence of entry. Beyond the cumulative effect of the variables entered, hierarchical regression allowed the singular testing of each variable's influence on the dependent variable after controlling for variables previously entered into the model. Although burden and depression correlate significantly with each other ( $r=.538$ ,  $p=.000$ ), a somewhat different set of caregiver and patient factors relate to depressive symptoms expressed by the respondents.

Multivariate Analysis found that burden was influenced by The four predictor variables were: satisfaction with emotional support ( $p=.000$ ), satisfaction with mental health staff ( $p=.034$ ), feeling unsafe with family member/patient ( $p=.001$ ), and working full-time ( $p=.002$ ). Depression was influenced by the variables as follows: being divorced or separated (versus married or widowed) ( $p=.010$ ), satisfaction with emotional support ( $p=.007$ ), feeling unsafe with the patient ( $p=.024$ ) and perceived adequacy of total family income ( $p=.053$ ).

The families studied show considerable depression with 45.3% of the sample scoring as depressed and a mean burden score of 11.33 out of 24.

Conclusions: A number of both caregiver and patient factors demonstrate significant relationships with caregiver burden. Caregivers experience higher levels of burden if they are younger, divorced or separated, working fulltime or have a higher income. Satisfaction with mental health staff and satisfaction with emotional support relate to lower burden, while ever feeling unsafe with the patient correlates with more burden. Relatives of younger patients who had their diagnoses for fewer years and who have more psychotic symptoms report more burden.

#### REFERENCES:

1. Ayuso-Gutierrez, J. L., del Rio Vega, J. M. (1997). Factors influencing relapse in the long-term course of schizophrenia. Schizophrenia Research, 28(2-3), 199-206.
2. McFarlane, W. (2004). Family Intervention in First Episode Psychosis. In Best Care in Early Psychosis Intervention Global Perspectives (pp. 213-220). London, Taylor and Francis.

#### No. 132

### PSYCHODRAMA GROUPS FOR PSYCHIATRIC INTERVENTION TO FAMILY MEMBERS OF PATIENTS WITH SCHIZOPHRENIA

Derya Iren Akbiyik, M.D. *Ankara Oncology Training and Research Hospital, Psychiatry, Bulbulderesi Cad. 50 / 5, Ankara, 06660, Turkey*, Tulin Kusgozoglu, Bahar Gokler, Prof. Dr., Haldun Soygu, Selvet Kurdoglu

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize that psychodrama is an effective alternative group psychotherapy model for the family intervention efforts in schizophrenia. The common feelings and problem areas in families of schizophrenia patients can be listed and tried to be evaluated in psychodrama groups.

**SUMMARY:**

**Objective:** Schizophrenia, like all chronic illnesses, is not only the problem of one person but also a matter very closely affecting families, close neighbourhood of patients and whole community. The disruption by hearing the diagnosis of schizophrenia usually influences the pre-existing homeostasis of the family. Most of the family interventions target to have the members be supportive for the patients and be helping to the treatment team. But expression of their feelings about their personal problems along with the burden of the patients usually remains secondary to the other efforts. Psychodrama, as a group psychotherapy technique, lets the group members look over their roles, expectations, feelings, hopes and boundaries by acting. The main purpose of this study was to see the effects of psychodrama based group psychotherapy on mental status of family members and to work on the matters which are not easy to speak. **Method:** A randomly selected group of family members of schizophrenic patients was called for psychodrama group sessions. Members, divided into two groups, came together once in two weeks for six months. The main subjects of the sessions were intendedly not the patients.

The inclusion criteria was having a schizophrenic family member who they primarily look after at least two years. The only exclusion criteria was having a psychotic history themselves. Only one family key person was accepted per patient. Each session usually lasted about 3 hours. They were asked to fill those instruments in the beginning and in the end of all group sessions; Symptom Check List-90 (SCL-90), General Health Questionnaire-12 (GHQ) and an information questionnaire about the sociodemographic characteris-

tics. Before the first group session, they all were theoretically informed about the illness and its burden and short psychiatric examination. was done for each. Their symptoms, if any, and all of the changes in their lives during the study, including the new attacks of their patients, were noted. **Results:** The number of patients who decided to attend to the groups was 20 (10 in each). There was no drop-out until the end of study. The mean age of them was 44 years. The need for antidepressant use significantly decreased from 25% in the beginning to 10% in the end of the study. GHQ-12 scores also decreased meaningfully, however they never were under the cut off point. The depression and anxiety subscale scores of SCL-90 showed a decrease. Sleep was an important problem area for which 40% of the patients were taking medication in the beginning. The need for medication was lower in the end. The most dominant feelings were anger and guiltiness. All of them were agree that acting/showing instead of speaking in the group was easier to express their feelings. **Conclusions:** Psychodrama based group psychotherapy is easy and effective for the personal feelings and symptoms of the family members of schizophrenia patients. For the family intervention efforts in psychosocial rehabilitation programs, psychodrama groups/techniques should be used to be able to have the members express the feelings which are hard to begin talking about.

**REFERENCES:**

1. Chien WT, Chan S, Morrissey J, Thompson D: Effectiveness of a mutual support group for families of patients with schizophrenia *J Adv Nurs* 2005 Sep;51(6):595-608.
2. Reiff H, Merzbacher J: Team-work performed in accordance with methods based especially on subject-centered interaction (SCI) with the parents of schizophrenics *Psychiatr Prax* 1980; 7(1):9-16.

## **SYMPOSIUM 1—HIV PREVENTION INTERVENTIONS WITH PSYCHIATRIC PATIENTS FROM AROUND THE WORLD: TURNING RESEARCH INTO PRACTICE**

### **EDUCATIONAL OBJECTIVES:**

“At the conclusion of this presentation, the participant should be able to: 1) Understand that the majority of adults with Severe Mental Illness (SMI) around the world are at significantly enhanced risk for infection with HIV; 2) Recognize the need for structured prevention efforts targeting adults with SMI on multiple levels (e.g., individual, group, community, structural/policy); and 3) Identify underlying processes to better target HIV prevention intervention efforts among adults with SMI.”

### **No. 1A SEVERE MENTAL ILLNESS: HIV RESEARCH TRAJECTORY AND NEEDS**

Karen McKinnon, M.A. *Columbia University, New York State Psychiatric Institute, Psychiatry, 1051 Riverside Drive, Unit 112, New York, NY, 10032*

#### **SUMMARY:**

In 1997, NIMH recommendations for research on HIV, AIDS, and severe mental illness emphasized the urgent need for new studies on risk reduction and transmission prevention among people with severe mental illness. Three major areas were highlighted: how do factors and phenomena that are salient or unique to having a mental illness influence intervention response; how can study methodologies, quantitative and qualitative, be improved to enhance the utility of findings derived from them; and which intervention models remain to be tested and how can interventions address individual, system, network, care provider, and community needs (McKinnon, Carey, Cournos, 1997). This presentation will assess how far we've come in almost ten years toward achieving these goals and what the next decade of HIV prevention intervention research may contribute to the lives and well being of people with severe mental illness.

### **No. 1B ETHNOGRAPHY OF HIV RISK IN TWO PSYCHIATRIC SETTINGS**

Paulo E. Mattos *UFRJ, Department of Psychiatry, Rua Paulo Barreto 91, Rio De Janeiro, 22280-010, Brazil*

#### **SUMMARY:**

A collaborative study requires preliminary qualitative data on the target population. In the US-Brazil PRISMA Study on HIV Prevention among outpatients with Severe Psychiatric Disorders (Schizophrenia, Schizoaffective Disorder, Psychotic Depression and Severe Bipolar Disorder), ethnographic observations, in-depth interviews and focal groups gathered important data on sexuality and sexual practices previous to a pilot study and a further feasibility study in Rio de Janeiro. Those data were necessary to design the intervention itself.

### **No. 1C SEVERE MENTAL ILLNESS AND HIV RISK IN INDIA WITH AN EMPHASIS ON THE SPECIAL THREATS TO WOMEN**

Prabha S. Chandra, M.D. *National Institute of Mental Health and Neurosciences, Psychiatry, 947, 21st Cross, 5th Main, Sector 7, HSR LAYOUT, Bangalore, 560034, India, Michael P. Carey, Ph.D.*

#### **SUMMARY:**

We will review our qualitative research investigating the problem of sexual coercion among female psychiatric patients in India. Consecutive female admissions (n = 146) to the inpatient unit of a psychiatric hospital in southern India were screened regarding coercive sexual experiences. Women who reported coercion (n = 50; 34%) participated in a semi-structured interview to learn more about their experiences. Among these women, 24 (48%) reported that the perpetrator was their spouse, 13 (26%) identified a friend or acquaintance, and 10 (20%) identified a relative such as an uncle or cousin. Most experiences occurred in the women's homes. Thirty of the 50 coerced women (60%) reported that they had not disclosed their experience to anyone, and that they had not sought help. Women revealed a sense of helplessness, fear, and secrecy related to their experiences. The problem of sexual coercion is seldom addressed in mental health care in India; the prevalence and severity of such experiences warrant immediate clinical attention and continued research.

### **No. 1D HIV PREVENTION AND PEOPLE WITH MENTAL ILLNESS IN SOUTH AFRICA: PREVALENCE, POLICIES, AND PRACTICE**

Pamela Y. Collins *Columbia University, Department of Psychiatry, na, New York, NY, 10032, Kezziah Mestry, LL.B., Alan Berkman, M.D., David Hoos, M.D.*

#### **SUMMARY:**

**Objectives:** More than five million South Africans live with HIV infection. Although the devastating results of the epidemic have prompted prevention and treatment initiatives for many populations, interventions for people with mental illness are lacking. We conducted a seroprevalence study among psychiatric patients and a qualitative study of mental health care providers (MHCPs) in order to 1) establish the need for HIV prevention and care interventions in psychiatric settings and 2) explain the barriers to implementation of these interventions.

**Methods. Seroprevalence Study:** Our research team conducted systematic, anonymous HIV antibody testing for 151 (75 female and 76 male) consenting participants at a state psychiatric institution in KwaZulu-Natal admitted from July-November of 2003, using saliva samples. All participants were offered the opportunity to be referred for diagnostic testing and pre- and post test counseling by prior arrangement with the hospital. **MHCP study:** Data were collected from group discussions and 46 semi-structured individual interviews with mental health care providers in four provinces of South Africa over a three-month period. The participants were men and women who provided clinical, rehabilitation or administrative services and were selected using a modified snowball procedure. All participants gave informed consent. All interviews were conducted in English and transcribed for analysis.

**Results. Seroprevalence Study:** The median age for the total sample population was 32 years (range: 25-40). 81% of patients were single and 71.5% belonged to Black ethnic groups. Of the 151 participants, 40 tested positive for a prevalence rate of 26.5% (95% confidence interval: 19.65- 34.28%). The majority had diagnoses of schizophrenia (34.4%), substance-induced psychiatric disease

(15.9%) and bipolar disorder (11.3%). Rates of infection between female (33.3%) and male (19.7%) participants, while marginally significant, suggested that females were twice as likely to be infected with HIV as males ( $P=0.0584$ ; odds ratio 2.03; 95% C.I. 0.23 - 1.03). MHCP study: Data suggested that individual, institutional (clinic and hospital), and social factors have created barriers to integrating prevention activities. In particular, providers faced at least three challenges to intervening in the epidemic among their patients: their own views of psychiatric illness, the transitions occurring in the mental health care system, and shifting social attitudes toward sexuality. At the individual level providers' perceptions of psychiatric symptoms shaped their outlook on intervention with psychiatric patients. At the institutional level disruptive transitions in service delivery relegated HIV services to lesser importance. At the societal level, although major political changes have occurred in South Africa, personal beliefs about sexuality and mental illness have remained slow to change.

Conclusion: High HIV prevalence among a sample of psychiatric patients in a South African institution affirms the need for targeted interventions that take into account the specific vulnerabilities of people with mental illness and the barriers that MHCPs have faced in implementing prevention activities.

#### No. 1E HIV RISK AND RISK-REDUCTION EFFORTS AMONG PERSONS HAVING SERIOUS MENTAL ILLNESS AND SUBSTANCE USE ISSUES IN THE U.S.

Laura Otto-Salaj, Ph.D. *University of Wisconsin-Milwaukee, Social Work/Center for Addiction and Behavioral Health Research, 2400 E. Hartford Avenue, Enderis 1181, Milwaukee, WI, 53211*

##### SUMMARY:

Higher HIV seroprevalence rates exist among persons with serious and persistent mental illness (SMI) in the United States, especially those living in urban areas. Risk factors for HIV transmission occurring among persons with SMI are: low percentage of condom use during intercourse occasions; men having male sexual partners; histories of sex trade or coerced sexual activity; and high rates of coexisting alcohol and/or drug use. In particular, research suggests that substance use and abuse may mediate HIV risk behavior, especially among persons with serious mental illness (SMI). In this presentation, we will discuss intervention strategies for addressing co-existing HIV risk and substance use in persons with serious mental illness, including results from the ARRIVE Project. The ARRIVE Project combined a 5-session small-group HIV risk reduction skills-building intervention with 2 sessions of one-on-one AODA counseling based on Motivational Enhancement Therapy (MET). Results of this intervention study and directions for future risk-reduction efforts will be discussed.

##### REFERENCES:

- Emshoff J, Blakely C, Gray D, Jakes S, Brounstein P, Coulter J, Gardner S: An ESID case study at the federal level. *American Journal of Community Psychology* 2003;32:345-57.
- McArthur J et al. Neurological Complications of HIV infection. *Lancet Neurol* 2005, 4: 543-555.
- Meade SC, Sikkema KJ: HIV risk behavior among adults with severe mental illness: a systematic review. *Clin Psychol Rev*, 2005;25, 433-457.
- Lindegger, G. & Crewe, M. (1997). HIV/AIDS: Managing the madness. In D. Foster, M. Freeman & Y. Pillay. *Mental Health Policy Issues for South Africa*, pp.263-278. Cape Town, Medical Association of SA Multimedia Publications.
- Otto-Salaj LL, Kelly JA, Stevenson LY, Hoffmann R, Kalichman SC: Outcomes of a randomized small-group HIV prevention inter-

vention trial for people with serious mental illness. *Community Mental Health Journal* 2000; 37: 123-144.

## SYMPOSIUM 2—THERAPEUTIC MISCONCEPTION IN CLINICAL RESEARCH

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to understand the challenges of obtaining informed consent to clinical research, especially the difficulties that patient/subjects have in distinguishing clinical research and treatment.

### No. 2A THERAPEUTIC MISCONCEPTION: AN OVERVIEW OF THE PHENOMENON

Paul S. Appelbaum, M.D. *University of Massachusetts Medical School, Department of Psychiatry, 55 Lake Avenue North, Worcester, MA, 01655*

#### SUMMARY:

Therapeutic misconception (TM) is the mistaken belief on the part of clinical research subjects that decisions about their treatment will be made solely based on their individual conditions and needs. Since it was first reported in 1982, TM has been recognized as a major obstacle to obtaining ethically valid consent in clinical research. This presentation reviews the tension between the ethics of clinical care and the ethics of research that lies at the core of TM, describes TM's probable origins among research subjects, provides an overview of TM's phenomenology, and suggest why it may be important to reduce its prevalence. In contrast to ordinary clinical treatment, as Fried pointed out, in a clinical research study "the care [participants] receive is not chosen exclusively on the basis of a concern for their individual well-being, but with regard to the success of the experimental design." Such techniques as randomization, double blinding, placebos, protocols that restrict discretion in the administration of treatment, and limits on the use of adjunctive treatments create substantially different circumstances than those that obtain in clinical settings. Such approaches may be legitimate if subjects provide informed consent, but valid consent may be absent in the presence of TM. Existing studies suggest that TM is common in the full range of clinical research, often involving a majority of participants. Its origins may reflect both the preconceptions with which patients arrive in the clinical research setting, and the experiences they have in that setting itself, including the information that they receive from investigators. Lower levels of education, increased age, more serious illness, and greater optimism for the future appear to predispose to TM, all of these being variables that may limit subjects' understanding of studies and heighten their need to believe that entering a research study will be beneficial for them. To the extent that patients decide to enter research projects in the belief that they will receive personal care that will not be forthcoming, it cannot be said that they appreciate the implications of their decision, and the validity of their consent is in question. Hence, efforts to undercut TM—as by revamping disclosures to emphasize the deviations from usual clinical practices—appear essential, and experimentation to identify the best ways of achieving this goal should be given high priority.

### No. 2B HOW PREVALENT IS THERAPEUTIC MISCONCEPTION?

Charles W. Lidz, Ph.D. *University of Massachusetts, Department of Psychiatry, 55 Lake Avenue North, Worcester, MA, 01655*

**SUMMARY:**

Therapeutic misconception is widely agreed to be a major problem in informed consent to research. Federal regulation of research procedures have increasingly focused on reducing this problem. There have been several different studies which have used different approaches to measurement with different groups of subjects. This paper reviews the results of those studies and presents what has been known about the prevalence of therapeutic misconception.

We will then present the results of a study that measured therapeutic misconception in 44 different research studies with a total of 225 different subjects. Results show that over 60% of subjects evidence therapeutic misconception on one of two dimensions and that prevalence of therapeutic misconception was related to both subject variables and features of the clinical trials. An analysis of a subset of 155 of these subjects who participated in clinical trials looked at their understanding and showed that the large majority of subjects could identify risks related to participation. However less than 14% could describe any risks or disadvantages to participating related to the methods involved in clinical trials (e.g., blind administration of medications, placebos, restrictive protocols for dealing with side effects). The paper will also present results on the prevalence of therapeutic misconception in subjects in psychiatric trials. These subjects showed statistically significantly more therapeutic misconception than those in non-psychiatric trials. The differences were, however, fairly modest.

In addition the paper will discuss some remaining difficulties in measurement and discuss how these difficulties constrain what is currently known. The presentation will also describe an agenda for future research in the area.

**No. 2C****ASSESSMENT OF THERAPEUTIC MISCONCEPTION IN OLDER PATIENTS WITH SCHIZOPHRENIA**

Laura B. Dunn, M.D. *University of California at San Diego, Department of Psychiatry, 3350 La Jolla Village Dr., 116A-1, San Diego, CA, 92161*, Barton W. Palmer, Ph.D., Monique Keehan, B.S., Dilip V. Jeste, M.D., Paul S. Appelbaum, M.D.

**SUMMARY:**

“Therapeutic Misconception” (TM) has been defined as the confusion or conflation of goals and procedures of clinical research with those of usual clinical care. As TM can hinder informed consent, potentially undermining the ethical conduct of research with human subjects, it is an important topic in research ethics. Yet, how to assess TM remains unresolved, and there are few validated TM instruments available. It is also unclear to what degree patients with severe mental illnesses, such as schizophrenia, may manifest beliefs comprising TM. We therefore examined the frequency of a key aspect of TM (TM1, or inaccurate beliefs regarding the degree of individualization of treatment within a specific research protocol). We used a brief, six-item true/false scale that was administered to 87 middle-aged and older patients with schizophrenia or schizoaffective disorder who were taking part in a larger study of informed consent in schizophrenia. A hypothetical, double-blind, placebo-controlled trial similar to real clinical trials was used as a stimulus. In addition to assessing the prevalence of TM, we analyzed its demographic, clinical, neurocognitive, and decision-making correlates, and we examined the psychometric properties of the TM scale. Participants showed variable performance on the TM measure. Nearly one-third of the sample answered all questions correctly, and two-thirds answered four or more of the six items correctly. Patients with less education or worse cognitive functioning manifested higher levels of TM. Degree of TM was inversely associated with understanding, appreciation, and reasoning scores on the MacArthur Competence Assessment Tool for Clinical Research (MacCAT-CR). On the other

hand, degree of TM was not associated with severity of psychopathology. The TM scale showed fair internal consistency. As in studies of other patient populations, patients with schizophrenia show a substantial incidence of beliefs associated with TM. Moreover, this study is consistent with others pertaining to informed consent for research in people with neuropsychiatric disorders. Specifically, it demonstrates that the appropriate question is not whether persons with serious mental illness have TM or other consent-related difficulties, but rather which patients are likely to have such deficits. As in other studies, cognitive functioning, rather than psychopathology, was a more robust correlate of impaired performance on this consent-related measure. Further work is needed to refine and validate measures of TM, to identify participants or protocols (e.g., higher risk studies) where it may warrant greater concern, and to develop educational interventions to mitigate it.

**No. 2D****REACHING CONSENSUS ON THE CONCEPTUAL DEFINITION OF THERAPEUTIC MISCONCEPTION**

Barbara B. Rothschild, M.D., *University of North Carolina*

**SUMMARY:**

The original definition of TM was reported in 1982 by Appelbaum and Lidz as, “the mistaken belief on the part of clinical research subjects that decisions about their treatment will be made solely based on their individual conditions and needs.” In a recent study, Appelbaum, Lidz, and Grisso refined the definition of therapeutic misconception, as two equally weighted components: inaccurate belief that the research intervention is individualized treatment, and unrealistic appraisal of the likelihood of medical benefit, based upon their assessment of each trial’s potential to result in benefit. In contrast to this definition, Horng and Grady argue that the key and most ethically problematic component of TM is misunderstanding the nature and intent of research, while misestimating the probability of direct benefit is less problematic. Other authors also challenge the standard by which one might characterize the potential of medical benefit in early phase cancer trials as “reasonable” or not. This debate over the nature of a vague “benefit offer” also extends to assessment of language in consent forms. The lack of agreement - both conceptually and empirically - about what exactly constitutes therapeutic misconception has undermined the development of a standard, valid measure that can be applied across studies regardless of their particular characteristics and risk-benefit profile.

In our interview study that examined how researchers and study subjects discuss and understand the prospect of direct benefit in early phase gene transfer research, we developed an index of subjects’ therapeutic misconception, based on qualitative and quantitative assessment of answers to three interview questions. The study was not designed to test the combined use of these three variables as a measure of therapeutic misconception. Rather, we selected variables we thought were most closely related to TM in a post-hoc manner, although each addressed a different aspect of TM identified in the literature, and resembled measures found in prior studies. Despite the fact that our TM index performed well, it is clear that the next step is to develop and validate a scale of TM. We report here on work currently underway to develop such a scale, specifically the results of a consensus workshop convened with more than 20 researchers experienced in empirical work on TM, intended to establish agreement, first conceptually and then empirically, on the definition of TM.

**No. 2E****THE ETHICAL SIGNIFICANCE OF THE THERAPEUTIC MISCONCEPTION**

Franklin G. Miller, Ph.D. *National Institutes of Health, Department of Clinical Bioethics, Rockville Pike, Bethesda, MD, 20892-1156*

**SUMMARY:**

The "therapeutic misconception" refers to the tendency of clinical trial participants to confuse the design and conduct of clinical trials with the personalized attention characteristic of medical care. Although the therapeutic misconception is widely recognized as a basic ethical issue relating to informed consent to clinical research, there has been little systematic analysis of the ethical significance of the therapeutic misconception. In this presentation I will examine critically the way in which Paul Appelbaum and colleagues have formulated what is at stake in the therapeutic misconception, paying particular attention to assumptions or implications that clinical trial participation disadvantages research subjects as compared with receiving standard medical care. The ethical significance of the therapeutic misconception will be clarified, leading to policy recommendations for obtaining informed consent to participation in clinical trials.

**REFERENCES:**

1. Appelbaum PS, Lidz CW: The therapeutic misconception. In *The Oxford Textbook of Clinical Research Ethics*, edited by Emanuel EJ, Crouch RA, Grady C, Lie R, Miller F, Wendler D, New York, Oxford University Press (in press).
2. Lidz CW, Appelbaum PS, Grisso T & Renaud M: Therapeutic Misconception and the Appreciation of Risks in Clinical Trials. *Social Science and Medicine*. 2004, 58: 1689-1697.
3. Lidz CW, Appelbaum PS: The therapeutic misconception: Problems and solutions. *Med Care* 2002; 40:V55-63.
4. Henderson GE, Easter MM, Zimmer CR, et al.: Therapeutic Misconception in Early Phase Gene Transfer Trials. *Social Science and Medicine* (forthcoming).
5. Miller FG, Rosenstein DL. The therapeutic orientation to clinical trials. *N Engl J Med* 2003;348:1383-86.

## **SYMPOSIUM 3—MIGRATION AND MENTAL ILLNESS AROUND THE WORLD**

### **Royal College of Psychiatrists**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium the participant should know the incidence and type of psychiatric illnesses and problems in migrants, how they vary in different countries and different groups (especially refugees compared with other migrants) and understand some of the contributory causes, and how they might be helped.

#### **No. 3A REFUGEE MENTAL HEALTH CHALLENGES IN AFRICA**

Frank G. Njenga, M.D. *Upperhill Medical Center, PO Box 73749, Nairobi, TBD, Kenya*

**SUMMARY:**

Africa is home to large populations of refugees drawn from conflict prone areas of East, West, South and Northern Africa. Because of her political stability, Kenya has played host to refugees from the entire region, including Uganda, Sudan, Rwanda, Somalia and the Sudan. The numbers of refugees have caused great strain on the national resources, at times leading to resentment by local communities. This, in addition to the fact that poverty, displacement, homelessness, trauma and exposure to other diseases all act independently to cause mental disorders, has led to high levels of psychiatric disorder in refugee populations in Kenya. Of particular significance are the very high levels of PTSD, occasioned by the violence of wars in the region, complicated by challenges of language and cultural

differences and compounded by the pathoplastic effects of environment on psychosis. This paper describes the mental health consequences of being a refugee in a poor country.

#### **No. 3B MENTAL HEALTH OF SUDANESE REFUGEES: AN EGYPTIAN PERSPECTIVE**

Nasser F. Loza, M.D. *The Behman Hospital, PO 11421, Department of Psychiatry, 32 El Marsad street, Cairo, 11421, Egypt, Nael Hassan, M.D.*

**SUMMARY:**

Egypt and the Sudan have historically provided a continuum of social and cultural exchange. With the Nile valley providing the only route between Mediterranean and Sub Saharan Africa, Egypt became the natural host for Sudanese refugees.

The Sudanese refugee population is not a homogenous group. This review looks at the diversity within this population comparing motivational factors, situations in host countries and consequences on physical and mental health.

Immigrants from the Sudan have different grounds for their move. The socio-political situation in the South of Sudan over the past decades resulted in large numbers of southern Sudanese escaping the draught, while facing a psychological conflict of social and family pressures to stay and fight their war. This is unlike the situation in western Sudan where the sudden mass murders and burning of villages did not seem to result from an ideological conflict and the locals had less rational to stand their ground and fight their invaders. Organized resistance and political opposition provide for social cohesiveness. This was not always the case in Darfour.

Lastly we look at the group of Sudanese immigrants who did not flee wars or hunger but seem to move to better socioeconomic standards in other countries. These include professionals who hold substantial jobs in their host countries and represent a totally different set of psychological and cultural concerns.

The discussion would then follow on available resources to support the need of this population, both in the Sudan and in host countries.

#### **No. 3C PTSD AMONG A GROUP OF AFGHAN REFUGEES ATTENDING A PSYCHIATRIC SERVICE IN PESHAWAR, PAKISTAN**

Khalid A. Mufti, M.D. *Khyber Medical College, NWFP, Peshawar City, n/a, Pakistan, Haroon R. Chaudhry, M.D.*

**SUMMARY:**

**Background:** The studies of Afghan refugees in the West have revealed high rates of psychiatric morbidity. However, this group may not be representative of the Afghan refugees living in the East. After all, only a small number of Afghans took refuge in the West. Therefore study of mental health problems among refugees living in Pakistan provides a unique opportunity and thereupon can help in planning on how to help these people.

**Aims and objectives:** To measure psychiatric morbidity among a group of Afghan refugees attending a psychiatric clinic in Peshawar, Pakistan.

**Design:** This is a cross sectional study

**Setting:** The study was conducted at Horizon, a Non-Governmental Organization (NGO) that runs a psychiatric service in Peshawar.

**Assessments:** Clinical interviews by trained psychiatrists for assessments of psychopathology using the Mini International Neuropsychiatry Interview Schedule (MINI). Demographic and other data was collected using a form developed for the study.

Results: The mean age was 35 years, with 52.9% women and 47.1% men. The majority were married (70.4%) with 24.5% single and 3.9% widowed. Nearly 20% had completed high school education, 32% had had no school education, 32% had only primary school education and 16% had had education at the university level. Participants reported a wide variety of traumatic experiences. The rates of mental illness were found to be nearly 66%. The rates of depression and PTSD were 40% and 11% respectively.

Conclusion: High rates of depression, PTSD and history of trauma were found. How best to help these refugees will be discussed.

### No. 3D IMMIGRATION-REPATRIATION AND MENTAL HEALTH: THE CASE OF GREECE

George G. Christodoulou, M.D. *Hellenic Psychiatric Association, Papadiamantopoulou 11, Athens, 11528, Greece*, Michael G. Madianos, M.D.

#### SUMMARY:

Greece has a long history of emigration since the beginning of the 20th Century.

This social phenomena was mainly poverty-linked but war periods intensified the problem. Immigration has been linked with the prevalence of stress-related disorders, problems of adjustment, acculturation stress and severe mental disorders.

Since 1976 when the first epidemiological study was carried out among healthy Greek immigrants in New York City on acculturation and mental health, six other field surveys were conducted in England, Germany, Canada and in Greece (among repatriated migrants). In this report the characteristics and the findings of these epidemiological surveys will be presented and discussed within the framework of the findings of similar studies conducted in the international scene.

### No. 3E RAISED INCIDENCE OF PSYCHOSIS IN ETHNIC MINORITY GROUPS IN THE UK: THE AESOP STUDY

Paul Fearon *Institute of Psychiatry, Epidemiology and Social Psychiatry, De Crespigny Park, Box 63, London, SE5 8AF, United Kingdom*

#### SUMMARY:

Introduction: Although a raised incidence of schizophrenia among African Caribbeans in the UK is a well-replicated finding, it is unclear whether a) the incidence of other psychotic disorders is increased in this group, b) this phenomenon is present in other migrant groups in the UK, c) these phenomena apply to females as well as males and d) whether such findings might be due to confounding factors such as social class.

Method: The AESOP study identified all first presentation psychotic individuals in 3 well-defined geographical areas in South London, Nottingham and Bristol over a 2 year period. Sociodemographic information, including ethnic group classification, was obtained and ICD-10 diagnoses were obtained blind to ethnic group status. Rates (cases per 100,000 population per year) were calculated, adjusting for underenumeration and standardised to the population of England and Wales. Rate ratios (RR) were calculated using Poisson regression.

Results: Across the 3 centres, 569 cases were identified. The overall rate of psychosis in London was over twice that of Nottingham or Bristol. Rate for schizophrenia, mania/bipolar disorder and depressive psychosis followed a similar pattern.

Rate ratios were markedly elevated in both African Caribbeans and Black Africans, in both sexes, for all diagnoses and across all age groups. Thus, compared to Whites, African Caribbeans had a

RR of 6.8 (5.6-8.3) and Black Africans 5.6 (4.2-7.3) for all psychosis. Rates for Asian and other groups showed more modest increases. Adjustment for social class caused only minimal attenuation of these findings.

Conclusions: The aetiological significance of these findings will be discussed in the context of possible social and biological mechanisms. Any possible explanation must account for the fact that the rate of schizophrenia in the Caribbean is not raised compared with that of White British people in the UK.

### No. 3F MIGRATION AND MENTAL HEALTH IN CANADA: CAN PROVINCIAL POLICY HELP?

Stephen R. Kisely, M.D. *Dalhousie University, Department of Community Health & Epidemiology, 5790 University Avenue, Halifax, NS, B3H 1V7, Canada*

#### SUMMARY:

Background: Canada admits more than 200,000 immigrants every year. Government policy emphasises the admission of healthy immigrants rather than their subsequent health. Immigrants do not show a consistently elevated rate of psychiatric illness, and morbidity is related to an interaction between predisposition and socio-environmental factors, rather than immigration *per se*. These include forced migration and circumstances after arrival e.g. poverty, no recognition of qualifications, discrimination and the absence of their own community. Most immigrants settle in Toronto, Vancouver, or Montreal, and they have lower suicide rates than those who go elsewhere in Canada. This is confirmed in studies that show reduced rates of mental illness where there is a like-ethnic critical mass. Attraction and retention can therefore be used as a proxy for mental health.

Objectives & Method: To compare the impact of government policy in improving immigrant mental health using attraction and retention as indicators in two similar jurisdictions of 1 million where comparatively few immigrants settle: Manitoba and Nova Scotia. Manitoba has a well established Provincial Nominee Program (PNP) & Immigration Council which aim to make it easier for highly skilled immigrants to find employment in occupations for which they have training and experience. This has been absent till recently in Nova Scotia

Results: In 1995, 3,500 immigrants settled in each Province. 10 years later this had increased to 7,427 in Manitoba and fallen to 1,770 in Nova Scotia. This difference was statistically significant (95%CI=7,226-7600), with retention rates also diverging

Conclusions: Government policy can have an effect on the attraction & retention of immigrants, which may serve as useful indicators of their mental health.

#### REFERENCES:

1. United Nations High Commission for Refugees (2002) Figures published on the website <http://www.UNHCR.ch>.
2. The Lost Boys Of Sudan: An American Story Of The Refugee Experience, by Mark Blixer, University of Georgia Press, March 2005.
3. Kalafi Y, Hagh-Shenas H, Ostovar A: Mental Health among Afghan refugees settled in Shiraz, Iran. *Psychol Rep* 2002; 90:262-6.
4. Tsemberis S and Orfanos S 1996. Greek Families. In *Ethnicity and Family Therapy*, edited by McGoldrick M, Giordano J and Pearce J, New York, The Guildford Press.
5. Journal Article - Cantor-Graae, E. & Selten, JP. Schizophrenia and Migration: A Meta-Analysis and Review. *Am J Psychiatry* 2005; 162:1 12-24.
6. Beiser M. The health of immigrants and refugees in Canada. *Can J Public Health*. 2005; 96:S30-44.

## SYMPOSIUM 4—PSYCHOSOCIAL INTERVENTION AND CANCER SURVIVAL

### EDUCATIONAL OBJECTIVES:

To present new data on the effects of group and individual psychotherapeutic support on survival time of cancer patients.

#### No. 4A

### SUPPORTIVE-EXPRESSIVE GROUP THERAPY AND SURVIVAL IN PATIENTS WITH METASTATIC BREAST CANCER: A RANDOMIZED, CLINICAL INTERVENTION TRIAL

David Spiegel, M.D. *Stanford University, Department of Psychiatry, 401 Quarry Road, Room 2321, Stanford, CA, 94305-5718*, Lisa D. Butler, Ph.D., Janine Giese-Davis, Ph.D., Cheryl Koopman, Ph.D., Sue DiMiceli, B.A., Catherine Classen, Ph.D., Pat Fobair, M.P.H., Robert W. Carlson, M.D., Helena C. Kraemer, Ph.D.

#### SUMMARY:

**Background.** This study examined the effect of supportive-expressive group therapy on survival of women with metastatic breast cancer. The study was a replication trial of an earlier study that found a significant survival benefit associated with the group therapy intervention. **Methods.** In the present study, 125 women with metastatic breast cancer were recruited, assessed for baseline medical and psychosocial status, and randomly assigned to receive supportive-expressive group therapy plus educational materials or educational materials only. Women assigned to the group therapy condition were provided with weekly 90 minute sessions led by two experienced co-leaders. **Results.** Fourteen years (14.08) after the first participant was randomized, overall mortality in the sample was 86%, and median survival time was 32.8 months. Final analysis of survival in intervention and control samples will be reported using an intention-to-treat design.

#### No. 4B

### RCT OF SUPPORTIVE-EXPRESSIVE GROUP THERAPY IN ADVANCED BREAST CANCER: SURVIVAL, PSYCHOSOCIAL, AND ANTI-CANCER TREATMENT ADHERENCE OUTCOMES

David W. Kissane, M.D. *Memorial Sloan-Kettering Cancer Center, New York, USA, Department of Psychiatry & Behavioral Sciences, 1275 York Avenue, New York, NY, 10021*, Brenda Grabsch, M.S.W., David M. Clarke, Ph.D., Graeme C. Smith, M.D., Anthony Love, Ph.D., Sidney Bloch, M.D.

#### SUMMARY:

**Background:** Mixed findings have been reported about the impact of supportive-expressive group therapy (SEGT) on cancer survival.

**Methods:** 227 women with metastatic breast cancer were randomized in a 2:1 ratio to intervention with >1 year of SEGT plus 3 classes of relaxation therapy (147 women) or to control receiving 3 classes of relaxation therapy (80 women). The primary outcome was survival; adherence to anti-cancer treatments and psychosocial well-being (structured psychiatric interview and self-report questionnaires) were appraised secondarily. Analysis was by intention-to-treat.

**Results:** SEGT did not prolong survival significantly (median survival 24.0 months in SEGT and 18.3 months in controls; hazard ratio by univariate analysis 0.92 [95% CI, 0.69 to 1.24]. In the multivariate Cox model, death was predicted significantly by having visceral metastases at randomization (HR 1.92, 95%CI 1.36 to 2.72,  $p < 0.001$ ) or being stage III or IV at diagnosis (HR 1.65, 95%CI 1.09 to 2.50,  $p < 0.05$ ) and its likelihood reduced significantly by

receiving more chemotherapy & hormone therapy in the SEGT arm (HR 0.92, 95%CI 0.91 to 0.94,  $p < 0.001$ ). The presence of baseline depressive disorders, treatment with SEGT and time elapsed from primary to secondary diagnosis were not significant in the full Cox model. SEGT enhanced adherence to anti-cancer treatment with chemotherapy and hormone therapy ( $p = 0.04$ ), ameliorated DSM-IV depressive disorders and significantly prevented new depression ( $p < 0.01$ ) compared to controls. It reduced a hopeless-helpless attitude ( $p < 0.01$ ), improved social functioning ( $p < 0.05$ ) and reduced traumatic stress symptoms ( $p < 0.04$ ).

**Conclusions:** SEGT did not prolong survival directly, but it did enhance adherence to anti-cancer treatments significantly, while both treating and protecting against depression. Promoting behavioral compliance with anti-cancer treatment has important potential to improve care.

#### No. 4C

### TREATMENT OUTCOMES OF GROUP SUPPORTIVE-EXPRESSIVE THERAPY FOR WOMEN WITH METASTATIC BREAST CANCER

Molyn Leszcz, M.D. *Mount Sinai Hospital, Department of Psychiatry, 600 University Avenue, Toronto, ON, M5G 1X5, Canada*

#### SUMMARY:

The effect of psychotherapy on survival for individuals with cancer has been an important focus of research in psycho-oncology. This paper will review the outcomes of a multi-site randomized control trial of supportive-expressive group therapy for a series of 235 women treated across Canada. Although no survival benefits were achieved, significant benefits were demonstrated with regard to mood and the experience of pain. These findings were particularly prominent for women who entered treatment with high levels of psychological distress. Challenges and controversies in this area of research will be described in this presentation.

#### No. 4D

### IMPACT OF PSYCHOTHERAPEUTIC SUPPORT ON GASTROINTESTINAL CANCER PATIENTS UNDERGOING SURGERY: TEN-YEAR FOLLOW-UP SURVIVAL RESULTS OF A RANDOMIZED TRIAL

Thomas Kuechler, Ph.D. *University Hospital of Schleswig-Holstein, General and Thoracic Surgery, Arnol-Heller-Str. 7, Kiel, 24105, Germany*

#### SUMMARY:

**Objective:** The impact of psychotherapeutic support on survival time in patients with gastrointestinal cancer undergoing surgery was studied.

**Methods:** A randomized controlled trial was conducted in cooperation with the Departments of General Surgery and Medical Psychology, University Hospital of Hamburg, Germany from 1/1991 - 1/1993. Consenting patients ( $n=271$ ) with a preliminary diagnosis of cancer of the esophagus, stomach, liver/gallbladder, pancreas or Colon/rectum were stratified by sex and randomly assigned to a control group that received standard care as provided on the surgical wards, or to an experimental group that received formal psychotherapeutic support in addition to routine care during the hospital stay. From 6/2003 to 12/2003 the 10-year follow-up was conducted. Survival status of all 271 patients could be determined using three data sources: the Hamburg cancer registry, family doctors and the general citizen registration offices.

**Results:** Kaplan-Meier survival curves demonstrated better survival for the experimental group than the control group. The unadjusted significance level for group differences was  $0=0.0006$  for



survival to 10 years. Cox regression models that took TNM Staging or the Residual Tumor Classification and site of tumor into account also found significant differences at the 10-year follow-up. Secondary analyses found that more differences in favor of the experimental group occurred in females and in patients with stomach, pancreatic, primary liver or colorectal cancer. The results of this study indicate that patients with gastrointestinal cancer, particularly those who are female and those who undergo surgery for stomach, pancreatic, primary liver or colorectal cancer, benefit from a formal program of psychotherapeutic support during the in-hospital stay in terms of long-term survival.

#### No. 4E

### **MALIGNANT MELANOMA: EFFECTS OF A BRIEF, STRUCTURED PSYCHIATRIC INTERVENTION ON SURVIVAL AND RECURRENCE AT TEN-YEAR FOLLOW-UP**

Fawzy I. Fawzy, M.D. *UCLA/NPI, Dept of Psych, 760 Westwood Plaza, Los Angeles, CA, 90024-8300*

#### SUMMARY:

The influence of psychiatric intervention on cancer outcome remains a topic of considerable debate. We previously reported the survival benefits for 68 patients with malignant melanoma 5 to 6 years following their participation in a structured psychiatric group intervention. In this presentation I will discuss the effects of the intervention on disease outcome in these same patients at the 10-year follow-up.

When analyzed as single covariates, differences between the intervention and control groups were not significant for outcome at the 10-year follow-up. However, being male and having a greater Breslow depth were predictive of poorer outcome. Analysis of multiple covariates also revealed that sex and Breslow depth were significant for recurrence and survival. In addition, participation in the intervention was significant for survival. After adjusting for sex and Breslow depth, participation in the intervention remained significant for survival.

These findings suggest that the survival benefit of the intervention has weakened since the 5- to 6-year follow-up; however, it has not entirely disappeared. At the 10-year follow-up, participation in the intervention remained predictive of survival when statistically controlling for the effects of other known prognostic indicators. Despite the potential health benefits, we do not propose that psychiatric intervention be used in lieu of standard medical care, but as one of its integral components.

#### REFERENCES:

1. Spiegel, D., J. R. Bloom, Kraemer, H.K., Gotthel, E. (1989). "Effect of psychosocial treatment on survival of patients with metastatic breast cancer." *Lancet* 2(8668): 888-91.
2. Kissane DW, Grabsch B, Clarke DM, et al: Supportive-expressive group therapy: the transformation of existential ambivalence to creative living while enhancing adherence to anti-cancer therapies. *Psycho-Oncology* 2004; 13: 755-768.
3. Goodwin PJ, Leszcz M, Ennis M, Koopmans J, Vincent L, Guther H, Drysdale E, Hundleby M, Chochinov HM, Navarro M, Specia M, Hunter J: The effect of group psychosocial support on survival in metastatic breast cancer. *NEJM* 2001; 345(24):1719-1726.
4. Kuechler T, Henne-Bruns D, Rappat S., Graul, J, Holst K, Williams JI, Wood-Dauphinee S. Impact of psychotherapeutic support on gastrointestinal patients undergoing surgery; *Hepatogastroenterology* 1999; 46: 322-325.
5. Malignant Melanoma: Effects of a Brief, Structured Psychiatric Intervention on Survival and Recurrence at 10-Year Follow-up. *Arch Gen Psychiatry*, Jan 2003; 60: 100 - 103.

## **SYMPOSIUM 5—SEXUAL ORIENTATION AND SPORTS**

### **International Society for Sport Psychiatry**

#### EDUCATIONAL OBJECTIVES:

To recognize the unique challenges that gay and lesbian athletes face in the sports world and hopefully how sport psychiatrists might help.

#### No. 5A

### **BEING GAY IN SPORTS**

Eric D. Morse, M.D. *University of Maryland, Mental Health Services, 5766 Goldfinch Court, Ellicott City, MD, 21043*

#### SUMMARY:

The purpose of this presentation is to discuss the challenges that gay athletes face in the sports world. Many gay male athletes keep their sexual orientation a secret out of fear of harassment from teammates, coaches, and fans. Stereotypes, labels, and societal expectations for athletes may keep athletes from revealing their sexual orientation. A handful of elite gay athletes have come out after their playing careers were over. Recently, some athletes have come out during their playing careers. Athletes may present to sport psychiatrists with mental health concerns related to the question of coming out. What should we advise? Some case studies and a literature review will be discussed.

#### No. 5B

### **GENDER ROLE CONFLICT IN FEMALE ATHLETES**

Altha J. Stewart, M.D., *111 South Highland, Suite #180, Memphis, Tennessee, 38111*

#### SUMMARY:

In the thirty years since the passage of Title IX, women athletes still remain "on the sidelines" compared to their male counterparts. Women athletes face most of the same issues as other women in their same age range in general society in the areas of career and relationships. They also experience certain problems unique to their status as athletes.

Female athletes often have to cope with negative stereotypes, especially those who enter traditional masculine sports. Numerous researchers have studied the issue of gender role conflict when women engage in sports traditionally regarded as more masculine, with some concluding that being feminine is incompatible with the aggressive attitude and behavior required in sports. Differences in gender and societal expectations based on gender must be carefully studied to develop appropriate and effective supports and treatment interventions.

This presentation will include a review of literature related to women in sports and gender role conflicts and a discussion of the unique issues facing the clinician evaluating athletes. In addition, recommendations for appropriate treatment interventions will be reviewed.

#### No. 5C

### **SUICIDE AND THE HOMOSEXUAL ATHLETE**

Antonia L. Baum, M.D. *George Washington University, Department of Psychiatry, 5522 Warwick Place, Chevy Chase, MD, 20815*

#### SUMMARY:

This paper seeks to elucidate the difficulties encountered by the homosexual athlete, which may lead to suicidal thoughts and behav-

iors. Adolescent homosexuals in the general population are at an increased risk (2-3x) of attempting suicide. In the homophobic world of sports, that risk may increase. The unique pressures of the competitive athletic arena may compound that risk. Factors including secrecy, stigma, and HIV are contributing factors in the case scenarios presented. A greater awareness of the existence of homosexuality in the sports world and a better understanding of the unique pressures that ensue is critical to the recognition and treatment of athletes at risk.

#### REFERENCES:

1. Beigel D, Burton R: Sport Psychiatry: Theory and Practice. London: W.W. Norton & Co, 2000, 276 pp.
2. Miller JL, Levy GD: Gender role conflict, gender-typed characteristics, self-concepts, and sport socialization in female athletes and non athletes. *Sex Roles* 1996; 35:111-122.
3. Dolen C: In is own words....Greg Louganis. Knight-Ridder/Tribune News Service, November 1, 1999, K0485.

### SYMPOSIUM 6—INSOMNIA: WHAT IS IT?

#### EDUCATIONAL OBJECTIVES:

To recognize and treat primary and secondary insomnia

#### No. 6A INSOMNIA: DIAGNOSIS AND TREATMENT CHALLENGES

Thomas W. Uhde, M.D. *Penn State University, Psychiatry & Penn State Neurosc Inst, TBD, Hershey, PA, 17033*

#### SUMMARY:

Insomnia is among the most prevalent subjective complaints in both normal healthy humans and as a putative secondary complication of mood, anxiety, psychotic and medical conditions. Despite the wide prevalence of insomnia in our society, the value of making primary versus secondary distinctions, as well as our understanding of the basic neurophysiology and neurochemistry, remains uncertain. This paper will provide an brief overview of the fundamental questions to be addressed by the subsequent speakers, who will offer an update and present original data on the prevalence and epidemiology of insomnia, the phenomenology of insomnia in different psychiatric and medical conditions, and the relationship between subjective insomnia and objective measures of prolonged wakefulness and sleep deprivation. The role of cytokines in sleep will be reviewed and also discussed within the context of insomnia as a hyperarousal syndrome. Practical treatment guidelines will be provided, taking into account current knowledge and the theoretical constructs outlined in the symposium. The purpose of this presentation is to outline these fundamental issues and to set the tone for the overall symposium.

#### No. 6B EPIDEMIOLOGY OF CHRONIC INSOMNIA

Edward Bixler, M.D. *Sleep Res & Treatment Center, HMC, TBD, Hershey, PA, 17033*

#### SUMMARY:

It is widely accepted that insomnia is the most prevalent sleep disorder affecting one-third of the adult population. About 10% of the general population report insomnia requiring medical attention, whereas another 20% report some degree of sleep difficulty in terms of sleep initiation and maintenance. In clinical samples, insomnia has been associated with psychopathology, physical symptoms, or primary sleep disorders such as sleep apnea or periodic limb movements. These findings and their inconsistencies may reflect bias

inherent in clinical samples. In a large general population cohort in Central Pennsylvania of a wide age range (20-100 years), insomnia was most strongly associated with depression, followed by female gender and socioeconomic status. In addition, physical conditions, such as colitis, hypertension, and anemia, were also associated but to a lesser degree. Finally, primary sleep disorders, such as sleep apnea, do not seem to play a major role in insomnia. These results confirm previous findings about the strong association of insomnia with mental health and that an appropriate diagnostic evaluation and treatment of insomnia should always include mental health assessment, even in a brief visit with a busy practitioner. This message is important, particularly now that many insomniacs are treated by their primary care physicians, and a large number of sleep specialists have no psychiatric background. Finally, these results suggest that psychiatrists have an important role in the diagnosis and treatment of insomnia as well as in the research efforts to understand the psychobiology of this disorder.

#### No. 6C CHRONIC INSOMNIA: CAUSE-EFFECT RELATIONSHIP TO DEPRESSION AND ANXIETY DISORDERS

Ravi K. Singareddy, M.D. *Penn State College of Medicine, Psychiatry & Penn State Hershey NRI, 500 University Drive, P.O. Box 850, Hershey, PA, 17033*

#### SUMMARY:

The association of chronic insomnia to psychiatric disorders is well documented, most notably to depressive and anxiety disorders. Insomnia can predate, follow, or occur at the same time as depression or anxiety disorders. Evidence pertaining to this cause-effect relationship of chronic insomnia to depression and anxiety disorders will be critically reviewed and the possible underlying pathophysiological mechanisms for this association will be discussed.

#### No. 6D BIOLOGICAL MODELS OF CHRONIC INSOMNIA: CLINICAL IMPLICATIONS

Alexandros Vgontzas, M.D. *Penn State University, Psychiatry & Sleep Res & Treatment Ctr, TBD, Hershey, PA, 17033-0850*

#### SUMMARY:

Although insomnia is the most common sleep complaint affecting the lives of millions, research on its biology is relatively recent. We will present recent biological findings in insomnia research that address three longstanding challenges of the insomnia field. First, is insomnia a disorder of sleep loss or is sleep loss a manifestation of insomnia? Second, is insomnia a nighttime sleep problem or a disorder that is present throughout the 24-hour sleep-wake cycle? Third, what is the association of insomnia with depression, the most common comorbid mental health disorder associated with insomnia? Accumulated evidence from behavioral, physiologic, sleep EEG, and stress and immune systems studies suggest that insomnia is a disorder of emotional and physiological hyperarousal and not of sleep loss. Furthermore, its symptoms are present throughout the 24-hour sleep-wake cycle and not only at nighttime. Finally, it appears that insomnia associated with depression is different in terms of its neurobiology than depression in which sleep disturbance is a secondary complaint. These findings challenge some of the current practices, i.e., too much emphasis on improving nighttime sleep, and support some recent shifts in the treatment of insomnia such as the use of cognitive-behavioral therapy and antidepressants. Future research should address the validity and clinical usefulness of the hyperarousal model of insomnia.

No. 6E  
**HEALTH CORRELATES OF INSOMNIA IN YOUNG ADULTS**

Antonio Vela-Bueno, M.D. *Autonomous University of Madrid, Dept of Psychiatry, Cea Bermudez 44-7 Da, Madrid, TBD, Spain*, Sara Olavarrieta-Bernardino, Psy.D., Julio Fernandez-Mendoza, Psy.D., Alfredo Rodriguez-Muñoz, Psy.D.

**SUMMARY:**

**Objective:** To assess the relationship between somatic and psychic symptoms and the complaint and symptoms of insomnia in a young adult population.

**Method:** Information about various psychic and somatic complaints was obtained from comprehensive questionnaires administered to first year university students. A total of 1714 questionnaires were distributed. Of those 1266 were validly completed (response rate 74.15%).

**Results:** Multiple logistic regression analyses controlling for other factors will be presented and a model will be described.

**REFERENCES:**

1. Mellman TA, Uhde TW: Electroencephalographic Sleep in Panic Disorder. A Focus on Sleep-Related Panic Attacks. *Arch Gen Psychiatry* 1989; 46: 178-184.
2. Bixler EO, Vgontzas AN, Lin HM, Vela-Bueno A, Kales A. Insomnia in central Pennsylvania. *Journal of Psychosomatic Research* 2002; 53(1):589-592.
3. Drake CL, Roehrs T, Roth T: Insomnia causes, consequences, and therapeutics: An overview. *Depression and Anxiety* 2003; 18: 163-176.
4. Vgontzas AN, Bixler EO, Lin HM, Prolo P, Mastorakos G, Vela-Bueno A, Kales A, Chrousos GP. Chronic insomnia is associated with nyctohemeral activation of the hypothalamic-pituitary-adrenal axis: clinical implications. *Journal of Clinical Endocrinology*.
5. Kales A, Kales JD. Evaluation and treatment of insomnia. New York, Oxford University Press, 1984.

**SYMPOSIUM 7—THE AFRICAN DIASPORA: IDENTIFYING AND ELIMINATING BARRIERS TO MENTAL HEALTH**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, participants will be able to:

- 1) Become familiarized with the commonly held beliefs on the etiology and course of psychiatric disorders in African communities.
- 2) Identify the constraints that stigmatization of mental disorders poses to African communities in the seeking of safe, ethical, and scientifically proven interventions in their native societies, or in the host societies immigrated into.
- 3) Identify the costs of stigmatization of mental illness to African communities
- 4) List the barriers to mental health services encountered by recent African immigrants
- 5) List the fundamental building blocks in the design of a community-based outreach public awareness program.
- 6) Determine the need and role of an African Alliance for the Mentally Ill: A Mental Health Care Advocates Initiative for Africans

No. 7A  
**AFRICAN BELIEF SYSTEMS AND CORRESPONDING HEALING PRACTICES**

Samuel O. Okpaku, M.D., *Meharry Medical College, 1005 D.B. Todd Boulevard, Nashville, Tennessee 37212-2801*

**SUMMARY:**

It is generally accepted that outcomes of schizophrenia are better in resource poor countries than in resource rich countries. Similar findings have been reported for HIV/AIDS. It is suggested that these results may be due to some contextual aspects of the culture as in some parts of Africa. These features include the coexistence of the sacred and the secular, and extended kinship system, a cosmological representation of terrestrial arrangements, a continuation of lineage and a filial-pietal relationship, in which parents are committed to taking care of their children, who in turn will respect and take care of their parents in a reciprocal fashion. Some of these factors, as indicated by Meyer Fortes, contribute to a moral and social code in relationship to one's parents and kinship groups, as well as, ancestral spirits. This code also provides a basis for responsibility and hence the relative absence of guilt. But more especially, this author believes that this religious-ethical framework provides a major framework for healing as illustrated by some African funeral rituals.

No. 7B  
**WHY IS STIGMA SO RIFE IN NIGERIA?**

Oye Gureje, MBBS, PhD, DSc

**SUMMARY:**

There is currently a common concern about the stigmatization of mental illness. This concern is justified given that stigma constitutes a barrier to the community treatment and rehabilitation of persons with mental illness. Previous anecdotal reports suggest that traditional African societies are more accepting of the mentally ill than Western societies. However, empirical support for this claim had been lacking and experience of clinicians working in Africa has often suggested otherwise. Using data from the largest community-based study of knowledge of and attitude to mental illness conducted in sub-Saharan Africa, we show that, contrary to previous claims, the stigmatization of mental illness is rife. Many in the community hold a religio-magical, rather than a biopsychosocial, view of the causation and treatment of mental illness. A negative view of the outcome of mental illness is also common and cuts across different socio-demographic groups. It is concluded that current views of mental illness in Nigeria, a country with the largest proportion of black persons in the world, are likely to constitute a barrier to the receipt of appropriate care by the mentally ill and to their integration into the social fabric of the society.

No. 7C  
**THE HAITIAN DIASPORA: BARRIERS IN ACCESSING MENTAL HEALTH SERVICES**

Mary Titus-Villedrouin, MPH

**SUMMARY:**

This presentation will provide a personal account of a female relative from Haiti. The speaker will present the ill effects of stigmatization of mental illness in a family ostracized. The relative had shown severe symptoms such as delusions of grandeur, paranoia, disorganization and hoarding behavior over a period of twenty years since migrating to the United States. She was found dead in her home during the Holiday season of 2004. She had never been diagnosed with any type of mental illness. A cultural perspective on the effects of a relatively unwelcome immigration to the U.S from a Francophone country, language, ethnic identity, religion, spiritual beliefs and taboos, socio-economic status, family structure and role of the community in creating barriers to mental health care will be discussed.

No. 7D

### **Barriers to Mental Health Service Delivery to Ethiopian Immigrants and Refugees in the U.S.: How Should We Tackle this Problem?**

Yeshashwork Kibour, PhD

#### **SUMMARY:**

Ethiopia is one of the top five sending countries of the estimated 881,300 African newcomers living in the U.S. In addition to adjusting to normal life changes, African newcomers embark upon the arduous task of integrating into a new country harnessed with either the consequences of traumatic experiences endured on their way or with the cumulative stress common to the adjustment process or both. Cultural factors, including stigma, faith-based perceptions of mental health (i.e. "spiritual punishment"), and access factors that include language, transportation, un/under employment, lack of health insurance, etc. have been cited as key barrier factors. For many Ethiopians, the first point of contact with a mental health professional is often after a critical incident has occurred (i.e. after hospitalization of a battered woman, removal of the child from the home, or even after a homicide/suicide has occurred). A preventive approach, in conjunction with culturally appropriate traditional mental health services, is a viable alternative to reduce barriers to mental health service delivery to Ethiopians in the U.S. The viability of communal health oriented psychoeducation delivered in the primary language and providing a "mental health roadmap" to coping, and being able to identify early signs of maladjustment will be discussed.

No. 7E

### **The Postcolonial Challenge to the Stigma of Mental Illness in Jamaica**

Frederick W. Hickling, Kingston 4, British Columbia

#### **SUMMARY:**

Three psychosocial community mental health stimulators devised in the 1970's illustrate the systematic and creative use of the science of social psychiatry to transform the myths, superstitions, stigma and attitudes to mental illness in the postcolonial Caribbean nation of Jamaica. Examples of the 1032 calls and 801 letters engaged by psychiatrists in a weekly 45-minute live radio psychiatry program between 1975 and 1981 and the psychosocial responses of the community are discussed. A five-staged sociodrama process using the technique of psychohistoriographic cultural therapy developed in the Jamaican Bellevue Mental Hospital in the period 1977 ? 1982 is described as a technique that produced four annual pageants depicting the history of madness in Jamaica. Performed by the patients and staff during the annual open week activities at the mental hospital and islandwide, the 43 performances of these pageants had a profound effect on the audiences of over 20,000. The form and content of the 80 newspaper articles published in the local newspapers in the period 1972-82 is analyzed and presented to illustrate the effect of these premeditative community stimulators. Analysis of 21 articles from a local daily newspaper 2003-4 illustrated the positive effects of this process of psychological deinstitutionalization that has led to the destigmatization of mental illness, the preparation of the society for the deinstitutionalization of the mental hospital and the social transformation to vibrant and robust community mental health care.

No. 7F

### **STIGMA AND MENTAL HEALTH: A SOUTH AFRICAN PERSPECTIVE**

Solomon Rataemane

#### **SUMMARY:**

Stigma often implies shame, disgrace or disapproval and usually results in an individual being shunned or rejected by others. Rejection

by friends, relatives, neighbours and the community as a whole can increase the family's sense of isolation, resulting in restricted social activities, and the denial of equal participation in normal social networks. The stigma associated with mental illness is strong but generally increases the more an individual's behaviour differs from that of the 'norm'. Although recent advances in psychiatry have increased the understanding of psychiatric disorders, many people with chronic or severe psychiatric disorders may be unaware that effective treatment is available. Ignorance and stigma may prevent mentally ill persons or their families from seeking appropriate help. Help seeking behaviour is determined to a large extent by community attitudes and beliefs about the illness. Blame for the illness may sometimes be placed on the patient or their families. Mental health problems are also sometimes "understood" as character weakness than real illness that requires proper health care - the mentally ill are thought to be dangerous and likely to have a criminal record. In addition to the obvious distress of seeing a loved one disabled by the consequences of a mental disorder, family members are also exposed to further stigma and discrimination. Medical insurances seem unwilling to pay for some forms of mental illness, thus creating more financial burden to individuals who are mentally ill and their families.

No. 7G

### **Recruitment of Minorities into Clinical Trials in Neuropsychiatry: the ADAPT experience**

Chiadi U. Onyike, M.D., M.H.S, Johns Hopkins Hospital, Osler 320, Baltimore, MD 21287

#### **SUMMARY:**

The objective of this talk is to stimulate a discussion on the barriers to effective minority participation in psychiatry clinical research. To illustrate the problem, we review minority recruitment efforts at the Baltimore site of the Alzheimer Disease Anti-inflammatory Prevention Trial (the ADAPT Study), a multicenter collaboration funded by the National Institute for Aging (NIA). Sampling strategies utilized by the study are described, and data on minority enrollment are presented. An analysis of the ADAPT Study experience is used to set the stage for a wider discussion on how stigma, history, poverty, culture, community and a dearth of minority professionals together influence the recruitment of minorities into clinical trials in psychiatry and mental health.

#### **REFERENCE:**

1. Baumann SE (1998) Psychiatry and Primary Health Care ' a practical guide for health care workers in Southern Africa. Juta and Company. Kenwyn.

## **SYMPOSIUM 8—TREATMENT ISSUES IN SCHIZOPHRENIA WITH COMORBID DISORDERS**

### **American Association of Practicing Psychiatrists**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium the participants will be familiar with the current state of knowledge in treatment of challenging comorbid conditions in schizophrenia.

**No. 8A**  
**DEPRESSIVE SYMPTOMS IN PEOPLE WITH SCHIZOPHRENIA**

Robert R. Conley *Maryland Psychiatric Research Center, Spring Grove Hospital Grounds, na, Baltimore, MD, 21228*

**SUMMARY:**

Depressive symptoms commonly are present in people who have schizophrenia. There are serious sequella from depressive symptoms in this group. Thoughts of suicide, thoughts of dying, loss of interest and previous suicide attempts are predictors of completed suicide in people with schizophrenia. Insight into having a serious mental illness and less severe cognitive impairment are also associated with increased risk for suicide in schizophrenia, most likely when accompanied by feelings of hopelessness. Suicide victims with schizophrenia have a high rate of depressive symptoms and are twice as likely to have a depressed mood as others with the illness. Victims of suicide also had higher rates of positive symptoms throughout their lifetime including thought control, flight of ideas, and loose associations. Suicide is one of the leading cause of premature death in individuals with schizophrenia and identification of risk factors is of great importance. Individuals who die by suicide experience higher rates of depressive symptoms, suicidal thoughts and positive symptoms during their life. There are treatment options for people with depression and schizophrenia. Typical antipsychotic drugs have not been shown to reduce the risk of suicide. Some of the atypical antipsychotics, particularly clozapine, are associated with improvements in depressive symptoms. However the current literature regarding the treatment of depression in regard to the prevention of suicide mostly consists of retrospective studies that do not control for potential biases in treatment selection, the use of multiple medications, the impact of medication nonadherence, and treatment discontinuation. There is fairly extensive signal in this work that suggests that, beyond atypical antipsychotics, lithium may be helpful for these mood disorders in schizophrenia. There is little support now for the use of divalproex, carbamazepine or SSRI antidepressants. Treating or preventing Parkinsonian symptoms is also critical for effectively treating depression in this group. Psychosocial and environmental interventions diminishing and counteracting stress in this group are also critical.

**No. 8B**  
**TREATMENT OF SCHIZOPHRENIA WITH OCD**

Michael Y. Hwang, M.D. *East Orange VA Medical Center, Department of Psychiatry, 385 Tremont Ave., East Orange, NJ, 07018-1095*

**SUMMARY:**

Obsessive-compulsive (OC) and panic symptoms in schizophrenia have been recognized and debated over the years. Yet, its underlying biological and clinical implications remained poorly understood and continue to challenge in clinical practice. Earlier diagnostic criteria including the DSM-III-R precluded simultaneous diagnosis of schizophrenia and anxiety disorders. This was partly due to the traditional belief that obsessive-compulsive and panic symptoms constitute part of the broader schizophrenic spectrum disorder and that these conditions occur rarely and carry no significant clinical significance. However, recent clinical, epidemiological, neuropsychological, and treatment studies found greater prevalence rates, worse clinical course, and poor long-term outcome in the subgroup of schizophrenia with comorbid obsessive-compulsive and panic disorders. Furthermore, treatment studies with specific pharmacological agents have shown marked symptom reduction and functional improvement. However, clinical management of schizophrenic patients with comorbid anxiety disorders continues to challenge practicing clinicians. While further studies are needed current evidence suggest that the schizophrenia

with comorbid anxiety disorders would benefit from in-depth assessment and individualized and specific treatment for optimal outcome.

This symposium presentation will examine the existing clinical, pharmacological, and neurobiological evidence and suggest their management.

**No. 8C**  
**SUBSTANCE ABUSE AMONG PATIENTS WITH SCHIZOPHRENIA SPECTRUM DISORDERS**

Douglas Noordsy, M.D. *Dartmouth Medical School, Psychiatry Department, 1 Medical Center Drive, Lebanon, NH, 03756*

**SUMMARY:**

The lifetime prevalence of substance use disorders in patients with schizophrenia is surprisingly high (47% to 58% in people with schizophrenia as compared with 16% of the general population (Regier et al. 1990, Kendler et al. 1996a). Alcohol is the most commonly abused substance in patients with schizophrenia, followed by cannabis (Drake & Mueser 1996), which one group reported in more than 50% of first-episode patients (Rolfe et al. 1999). In addition, 58-90% of people with schizophrenia are dependent on nicotine, approximately 3 times the general population rate. Substance use disorders complicate the course of illness and treatment of patients with schizophrenia, even when the substance use pattern is rather modest. Substance use is associated with treatment non-adherence, suicidality, hospitalization, homelessness, victimization, violence, increased risk for HIV, hepatitis B, and hepatitis C infection, and lower functioning in general. Moreover, substance use disorders in first episode patients may complicate assessment of the psychosis and delay treatment.

Several theories have been developed to explain the increased prevalence of substance use disorders in people with schizophrenia, which may provide some clues about the neurobiology of schizophrenia itself. The stress-vulnerability model proposes that a genetic vulnerability, modified by early environmental events, interacts with later environmental stressors to precipitate either the onset or relapse of a psychiatric or substance use disorder. The self-medication hypothesis suggests that substances are used to lessen symptoms of the psychotic disorder or to reduce side effects of antipsychotic medications. The reward deficiency hypothesis suggests that dysfunctional dopamine-mediated mesocorticolimbic brain reward pathways may underlie the symptoms of schizophrenia and the high vulnerability to substance abuse in these individuals.

Identifying and treating co-occurring substance abuse in patients with schizophrenia remain major clinical challenges. We will conclude with a review of medication and psychosocial interventions for patients with co-occurring substance abuse and severe mental illness.

**No. 8D**  
**COGNITIVE FUNCTIONING AND OUTCOME IN SCHIZOPHRENIA**

Philip D. Harvey, Ph.D. *Mt. Sinai School of Medicine, Department of Psychiatry, 1425 Madison Avenue, New York, NY, 10029*

**SUMMARY:**

Cognitive impairment in schizophrenia has both global and specific features. While patients with schizophrenia have impairments in nearly every cognitive domain, there is a clear gradient of severity with some abilities much more impaired than others. This gradient of severity defines a signature of impairments that are functionally relevant, that is, associated with the severity of impairments in everyday life skills. The causes of cognitive impairment in schizophrenia are less clear than in clearly degenerative conditions such as Alzheimer's or Huntington's disease, where clear brain changes can be

detected. However, there are considerable imaging data implicating dysfunctions in different circuits, such as thalamocortical or frontostriatal connections. Finally, results of studies with pharmacological probes and postmortem assessments have helped to identify some potential neurotransmitter bases for these impairments (e.g., norepinephrine, glutamate). While several studies using specific pharmacological interventions (e.g., cholinesterase inhibitors, SSRI antidepressants) have failed to enhance cognition in schizophrenia, there are still multiple viable targets for pharmacological intervention. These new targets will also be discussed in detail.

#### No. 8E SCHIZOPHRENIA AND COMORBID AGGRESSIVE BEHAVIOR: UPDATE 2006

Leslie L. Citrome, M.D. *Nathan Kline Institute, 140 Old Orangeburg Road, Orangeburg, NY, 10962*

##### SUMMARY:

Comorbid aggressive and violent behavior is a frequent reason for referral for mental health treatment. It is often an obstacle for reintegration back into the community. Aggressive behavior places other patients and staff at risk for harm. Treatment approaches for agitation and aggression center around two strategies: 1) the rapid management of acute agitation, and 2) the prevention, or reduction in intensity and frequency, of future episodes. The methods differ in terms of both behavioral interventions and medication selection. For the former, broad-spectrum sedating/calming agents are used to quell acute episodes of agitation. For the latter, medication is chosen based on the specific underlying mental disorder responsible for the aggressive behavior. This is complicated by diagnostic uncertainty, the presence of co-morbid disorders, and failure of medication regimens that otherwise should have resulted in improvement. Diagnostic and therapeutic challenges are frequently encountered; for example, some patients are violent only when acutely psychotic, while others may be persistently aggressive and not exhibiting delusions or hallucinations. This may be due to neuropsychiatric deficits, or character pathology (such as psychopathy), or both. Co-occurring substance abuse may also greatly increase the risk for violence.

#### No. 8F EATING DISORDERS IN SCHIZOPHRENIA

Sun Young Yum, M.D. *NJVAHCS-UMDNJ NJMS, Psychiatry, 183 South Orange Avenue, E-1435, Newark, NJ, 07101*, David P. Law, M.D., Sandra Denis, M.D., Sun Young Yum, M.D., Marcia Klein, Ph.D., Michael Y. Hwang, M.D.

##### SUMMARY:

Eating disorders in patients with schizophrenia have been unappreciated and poorly studied due to heretically based diagnostic systems in mental illness. Even when recognized, there is often groundless optimism that they will disappear as psychosis abates. Else, there is speculative skepticism, in which the manifold psychological problems are regarded as the patient's inability to comply with prescribed diets and ways of living. However, eating disturbances in schizophrenia pose significant challenges in managing metabolic illness, and therefore need appropriate attention.

In our patient sample, eating disturbances do not correlate with objective measures of severity of psychotic symptoms measured by the PANSS, but rather strongly correlate with patients' subjective perception of level of distress associated with psychiatric symptoms. This contradicts traditional belief that schizophrenic eating behaviors result from psychotic phenomena. Additionally, preliminary observations from group therapy sessions suggest that addressing the emo-

tional and cognitive basis for disturbed eating may be effective in behavioral changes as well as improvement of metabolic markers.

Distortions of body image and a deficient sense of self-effectiveness have been recognized as fundamental underlying features of schizophrenia. The emotional and cognitive functions of food in schizophrenia have also been recognized over the years. Cognitive modifications in schizophrenia may be difficult to achieve, but without identifying and appropriately addressing the eating disorders cognitive schemas, any form of behavior modifications or metabolic amelioration is not likely to last.

The session will discuss our research findings on eating behaviors in schizophrenia, as well as present our experiences in group therapy addressing self-acceptance, body image, interpersonal skills, stress coping, coping with chronic mental illness, nutrition awareness, and eating behaviors.

Patient well-being relies much on a physician's attitude towards illness. Attempts to address eating disorders and metabolic illness in schizophrenia must consider individual patient's emotional assets and weaknesses.

##### REFERENCES:

1. Kelly DL, Shim JC, Feldman SM, Yu Y, Conley RR: Lifetime psychiatric symptoms in persons with schizophrenia who died by suicide compared to other means of death. *J Psychiatr Res.* 2004 Sep-Oct;38(5):531-6.
2. Hwang My, Yum Sy, Kwon JS, Opler LA: Management of schizophrenia with obsessive-compulsive disorder. *Psychiatric Annals* 2005;35:36-43.
3. Mueser KT, Noordsy DL, Drake RE, Fox L: *Integrated Treatment for Dual Disorders.* New York, Guilford Press, 2003.
4. 8. Harvey PD, Green MF, Keefe RSE, Velligan DI: Cognitive functioning in schizophrenia: a consensus statement on its role in the definition and evaluation of effective treatments for the illness. *J Clin Psychiatry* 2004; 65:361-372.
5. Citrome L, Nolan KA, Volavka J: *Science-Based Treatment of Aggression and Agitation.* In Fishbein D (Ed), *The Science, Treatment, and Prevention of Antisocial Behaviors, Volume 2,* Kingston, New Jersey: Civic Research Institute, Inc., 2004.
6. Yum SY & Hwang MY. Obesity and metabolism in schizophrenia: clinical and psychopathological factors. *Biological Psychiatry* 2005; 57(8):94S.

#### SYMPOSIUM 9—REHABILITATION IN FRANCE, CANADA, AND THE U.S.: FROM SCIENCE TO RECOVERY: VIVE LA DIFFERENCE French Psychiatric Association

##### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to recognize the differences in the science of rehabilitation as practiced in France, Canada and the US as well as its difference from recovery.

#### No. 9A NEUROPSYCHOLOGICAL THERAPY PROTOCOL ON YOUNG SCHIZOPHRENIC PATIENTS IN DAY HOSPITALS

Christine Germain *Hal Corentin Celton, Department of Psychiatrie, Issy-Les Moulineau, 92130*

**SUMMARY:**

Treating young schizophrenic patients is a major issue for public health and is the subject of global research and recommendations. We describe a cognitive deficiency therapy protocol for patients suffering from schizophrenia. These disorders appear very early and are a major factor of prognosis of the illness

Firstly, schizophrenic patients staying at the hospital or who come in office visit get a neuropsychological and language checkup for global or partial cognitive deficiencies. The tests used (WAIS, WISC-CONSIN CARD SORTING TEST, STROOP TEST, REY FIGURE, TMT A and B, FLUENCE TESTS, GROBER AND BUSCHKE, TLC, etc.) show a global cognitive dysfunction together with specific alterations (executives functions, attention, memory).

Secondly, while patients are in clinical stabilization, we welcome them at the day hospital where they may receive a customized neuropsychological and speech therapy protocol, adapted to detected cognitive alterations. Using the patterns for neurology therapy (cognitive reorganization, neural plasticity), we have developed computer assisted specific protocols, using the REHACOM program. The scope and variability of disorders in patients justifies a customization of the protocol. The re-educated functions are: attention, short term memory, vigilance, planning, episodic memory, logical reasoning.

A traditional method using paper and pencil is used in therapy to re-educate speech.

We would like to present you the first encouraging results of a study carried out at the day hospital on 15 patients, which shows improvement of cognitive functions under re-education. These results are promising for the treatment of these disorders, still not very accessible to drug therapies.

**No. 9B  
IMPLEMENTING INNOVATIVE REHABILITATION  
MODULES: THE CASE OF IPT IN CANADIAN  
PROVINCE SITES**

Alain D. Lesage, M.D. *Hopital Louis-H Lafontaine, Ctr Recherche Fernand-Seguin, 7401 Hochelaga, Unit 218, Montreal, PQ, H1N 3M5*

**SUMMARY:**

How to ensure that patients and families have access everywhere and rapidly to best practices, evidence-based moderately effective rehabilitation modules in public managed care system like in Canada? The development of good practices rest first on professions like psychiatrists, psychologist, occupational therapists, etc. which have different tradition of continuing professional development and quality control; secondly, on rare provincial or even regional, more on local at times multidisciplinary initiatives and leadership. We can report on the early implementation of the IPT for patients with schizophrenia. IPT is composed by six modules, the first phase is a cognitive remediation phase which is followed by a social skills training phase. It is administered weekly to groups of 6-10 patients for about 9 months; the professionals use a manual but have some flexibility according to the patients' rhythm of learning. It has shown efficacy in clinical trials in Switzerland. It was brought to Quebec's province (Canada) by a psychiatrist, and Swiss colleagues came to Canada to initially train the multidisciplinary team. Members of the team, particularly Occupational Therapists (OT) with the support of psychiatrists, then took the leadership of ensuring training sessions for interested professionals (OT, nurses, social workers) in Quebec. Training involved a 2 day session followed by on-going access to trainers for advice.

A research project based on a mix case study design examined the clinical, economic and organizational aspects of the early implementation of IPT in 10 sites in Quebec. It confirms the moderate effect size clinical effect on cognitive and social functioning of patients either young adults or long-term mentally ill; an incremental

cost no more than 10% of the average annual direct care costs; and the importance of local leadership to implement and sustain this moderately complex module. Not included in this assessment and discussed here is the role of the multidisciplinary research team which acted as a provincial agency, galvanizing, training and supporting the various teams. But, can this support last and ensure renewable development? Referring to Thornicroft and Tansella's heuristic model (1998) and Health Canada model for Best Practices in mental health (1997), it can be argued that such implementation requires a vision, governance, resources and training applied at the clinical, local and regional/state level, to ensure that adequately trained staff apply to the right patients the innovative rehabilitation modules that would potentially achieve at least moderately favorable clinical and psychosocial outcomes.

**No. 9C  
RECOVERY FROM SCHIZOPHRENIA: CURRENT  
RESEARCH**

Robert P. Liberman, M.D. *UCLA School of Medicine, Department of Psychiatry, 528 Lake Sherwood Drive, Thousand Oaks, CA, 91361*

**SUMMARY:**

With the emergence of evidence-based pharmacotherapy and psychosocial services for schizophrenia, optimal symptom and functional outcomes are now more readily available to practitioners and consumers. To what extent do these advances in treatment and rehabilitation presage recovery from schizophrenia as a realistic goal for the 21st Century?

The term, recovery, carries with it surplus meaning. Definitions of the term can be developed for the "process" and "outcome" of recovery. The UCLA operational definition of recovery as an "outcome" include criterion-referenced attainment of symptom remission and functioning in work, school, friendships, family life, recreation and independent living. Researchers have begun to study recovery as a process and outcome. Data collected on cohorts of schizophrenia patients who meet or do not meet the criteria for recovery have offered preliminary validation of hypothesized predictors of recovery. Because most of the predictors are malleable, treatment and rehabilitation interventions can be studied for their effects on promoting recovery in greater numbers of patients than has been feasible heretofore. These studies will be described in the presentation.

**No. 9D  
EVIDENCE-BASED PRACTICES AND RECOVERY  
IN SCHIZOPHRENIA**

Alan S. Bellack, Ph.D. *Univeristy of Maryland, Department of Psychiatry, 737 W. Lombard St, Baltimore, MD, 21201*

**SUMMARY:**

There has been increasing recognition that recovery from mental illness is a developmental process in which the consumer strives to develop a satisfying life. This contrasts with the traditional psychiatric perspective that has focused on symptom reduction and absence of illness. From this new perspective recovery can be achieved independent of treatment. However, a partnership between the consumer and clinician built on recovery-oriented, evidence based practices may provide the most effective approach to help the consumer progress toward recovery. This presentation will describe current conceptions of recovery, provide an overview of evidence based psychosocial treatments, and discuss how these approaches can help to foster recovery.

No. 9E

### **A NEW REHABILITATION PROGRAM FOR PATIENTS WITH SCHIZOPHRENIA: DEVELOPMENT AND PRELIMINARY RESULTS**

Christophe Lancon *Paris, France*, Christophe Boulanger, M.D.

#### **SUMMARY:**

A new psychoeducative program is still being experimented at the rehabilitation centre of Marseille University Hospital (Pr Lançon). We are currently finalising the program and an evaluation will be presented. The preliminary stages of the program are : a first stage that involved listing schizophrenic patients' difficulties. We decided it was necessary to extend the initial psychoeducative program and to concentrate on time-management difficulties to improve self-sufficiency. The other difficulties encountered concern money, space management, relationships with friends, health care and physical appearance. A preliminary version was done in July 2003 and the first experimentation on schizophrenic on stable phase was performed from October 2003 to June 2004. At the end of the experiment, the patients involved confirmed that this program corresponds to what they expect in terms of rehabilitation. A new version of the program was written following the feedback from the first experience (July to September 2004).

#### **REFERENCES:**

1. Mc Gurk S., Lindenmayer P., Khan A., Wance D., Bernstein N., Simon B.: Cognitive skills training in patients with schizophrenia. *Sch bull* 31, 2005,528.
2. Tansella M, Thornicroft G.A conceptual framework for mental health services: the matrix model. *Psychol Med.* 1998 May;28(3):503-8.
3. Journal article - Liberman RP, Kopelowicz A: Recovery from schizophrenia: a concept in search of research. *Psychiatric Services*, 56:735-742, 2005.
4. Bellack AS: Skills training for people with severe mental illness. *Psychiat Rehab J* 2004; 27: 375-391.
5. Busschbach JV, Wiersma D : does rehabilitation meet the needs of care and improve the quality of life patients with schizophrenia or other chronic mental disorders ? *Community Mental Health J* 2002; 38: 61-70.

### **SYMPOSIUM 10—MODEL CURRICULA ON RELIGION AND SPIRITUALITY FOR PSYCHIATRY RESIDENCY TRAINING PROGRAMS**

#### **EDUCATIONAL OBJECTIVES:**

- 1) To understand ACGME accreditation standards concerning the teaching about religious and spiritual issues in psychiatry residency training programs
- 2) To understand how model curricula have been developed at training programs in the US and Canada

No. 10A

### **DEVELOPMENT OF A DEPARTMENTAL-BASED CURRICULUM OF SPIRITUALITY IN HEALTHCARE FOR PSYCHIATRY RESIDENTS, OTHER HEALTHCARE PROFESSIONALS, AND CLERGY/PASTORAL CARE PROFESSIONALS**

Joan M. Collison, M.D. *University of Kansas Medical Center, Department of Psychiatry & Behavioral Sciences, 3901 Rainbow Boulevard, Mailstop 4015, Kansas City, KS, 66160*

#### **SUMMARY:**

Implementation of this curriculum is based upon the premise that attending to the spirituality of patients is a vital aspect of the foundational imperative of medicine to heal. Healthcare professionals' awareness of their own spirituality is fundamental to expansion of one's capacity for sensitive attunement and compassionate response to the spiritual needs of patients, while also key to deepening an understanding of the interrelationship of spiritual, psychological, and physical aspects of health.

#### **Major Course Goals:**

- 1) Facilitating growth in knowledge of the nature of the dynamic relationship between the human spiritual dimension and healthcare, particularly as spirituality both impacts and is impacted by physical/mental illness and suffering;
- 2) Cultivating the uniquely fertile ground of healthcare for spiritual challenge, struggle, growth, and healing, by fostering the skills and confidence of healthcare professionals to recognize and respond to spiritual aspects of patient care in a respectful, sensitive, and appropriate manner;
- 3) Building an institutional environment that provides intra- and inter-disciplinary support of healthcare professionals endeavoring to integrate spirituality and healthcare within personal and professional roles;
- 4) Exploring the role of spirituality in psychological growth and development, mental health, and mental illness, and identifying leadership opportunities and responsibilities to enhance the integration of psychiatric and general medical care with spiritual care.

#### **Course Components & Structure:**

- 1) Core didactic lectures - required for psychiatry residents, and open to medical, nursing, and social work students, as well as other healthcare professionals performing psychiatric rotations, local master's and doctoral level seminary students, and local chaplaincy students;
  - 2) Research project - all psychiatry residents will be eligible and encouraged to participate as interviewers in research designed to define and assess met and unmet spiritual care needs of patients receiving acute or chronic mental healthcare services;
  - 3) Grand rounds - annual grand rounds consisting of moderated panel discussions of key topics will be publicized and open to healthcare and spiritual care professionals throughout the University of Kansas Medical Center and the greater Kansas City metro area;
  - 4) Small learning groups - individually structured small groups of 5-15 participants offer additional in-depth and specifically focused educational opportunities spanning the 3-year curriculum. Healthcare and spiritual care professionals from the University of Kansas Medical Center and the greater Kansas City metro area are encouraged to participate in groups accommodating their interests and schedules.
- Innovative Course Strategies: Unique course features include a distinguished faculty comprised of over 20 lecturers and grand rounds moderators, representing a diversity of professional expertise, and including a number of uniquely qualified individuals with dual training or professional roles in both the healthcare and spiritual care arenas. An additional distinctive aspect of this curriculum is the vision that development of effective psychiatric departmental leadership, at the interface of healthcare and spirituality, can contribute importantly to initiating and sustaining unparalleled positive change in healthcare quality, both within and beyond the hospital and institutional environment.

No. 10B

### **INCORPORATING A SPIRITUAL WORLDVIEW WITHIN PSYCHIATRY IN THE BIBLE BELT: UNIVERSITY OF SOUTH CAROLINA/PALMETTO HEALTH CURRICULUM ON SPIRITUALITY**

Nioaka N. Campbell, M.D. *University of South Carolina School of Medicine, Department of Neuropsychiatry, 15 Medical Park 3555 Harden St., Columbia, SC, 29203*, Craig A. Stuck, M.D.



**SUMMARY:**

The Spirituality and Cultural Competency Psychiatry Curriculum at the University of South Carolina involves integration of didactic and rotational experiences within the general and child psychiatry residency programs. It also includes a unique collaboration of disciplines involving faculty and students from psychiatry, psychology, and seminary programs. The goal of this curriculum is to educate, motivate, and encourage integration of spiritual issues into psychiatric practice.

The vertical curriculum includes seminars on spiritual and cultural worldviews while allowing for resident led workshops and elective experiences. At least four of the spirituality seminar topics are variable, chosen each year by residents according to their own experiences or that of their patients. In the adult psychiatry program, the PGY1 year includes four introductory seminars as well as spiritual/cultural issues of the southeast. The PGY2 year includes eight seminars encompassing resident chosen topics such as spirituality in a dying patient, African American spirituality in our community, spiritual assessment within the Hispanic culture, and the complexities of patients with disabilities. In the PGY3 year, six months of community experience encourages interaction among various cultures and subcultures different from that of the resident. There are also two seminars on consult liaison case presentations, spirituality and pain medicine. In the PGY4 year, the spirituality elective includes an opportunity for each resident to explore a culture or subculture of interest. Throughout all PGY levels there are weekly seminars on psychopharmacology, interviewing, and the 'biopsychosociospiritual' formulation. Spirituality is emphasized and integrated in each of these curricula and requires separate supervisor/supervisee evaluation forms. The Child and Adolescent Residency extends the spirituality curriculum with eight seminars addressing child development, psychopathology and spirituality, core beliefs and practices of major faiths, and resident panel discussions of personal and clinical experiences.

Four workshops bring together 2<sup>nd</sup> year adult psychiatry residents, 2<sup>nd</sup> year child psychiatry residents, psychology interns, and 2<sup>nd</sup> year seminary students. Faculty from the seminaries, psychiatry and psychology programs present information to foster greater understanding of the objectives and abilities of each discipline in providing care for people with emotional problems, distinguishing similar and unique aspects. Assessment instruments are used to monitor participant's attitudes before and after the seminars. Case presentations highlight the importance of addressing spiritual and mental health issues. Small group discussions create the opportunity for the students to interact with other disciplines, reinforcing the model of collaboration by the interdisciplinary faculty.

**No. 10C****BRIDGING THE GAP: SCIENCE AND SPIRITUALITY**

Patricia E. Murphy, Ph.D. *Rush University Medical Center, Dept. of Religion, Health and Human Values and Dept. of Psychiatry, 1653 West Congress Parkway, Dept. of Religion, Health, and Human Values, Chicago, IL, 60612-3833*

**SUMMARY:**

The Bridging the Gap: Science and Spirituality curriculum at Rush University Medical Center responds to the growing body of research that relates religion/spirituality to health outcomes as well as the shifting sensitivity to culture reflected in the DSM-IV. The curriculum integrates research, theory, and clinical experience.

Lectures over the three year period cover: Religious/Spiritual Beliefs of Diverse Groups, What I Wish My Doctor Knew About My Spirituality, Assessing Spiritual Resources and Struggles, Access to Spirituality for the Physician, Brief Interventions to Help Patients Access Spirituality, Addressing Spirituality at the End of Life, Spirituality and Self Psychology, Spirituality and Cognitive Theory, and

Spirituality and Developmental Stages. Each year, residents address issues of transference and countertransference related to religion/spirituality in Psychiatric Resident Case Presentations. The ethics class considers Ethical Issues in Discussing Religion/Spirituality.

Grand Rounds presentations, which extend our training to the others at Rush and at neighboring medical centers, include "From Research to Practice: Advances in

Spiritually-integrated Treatment" by Kenneth Pargament, Ph.D. and "Recent Research in Religion and Depression" Patricia Murphy, Ph.D. in the first year. In the second and third years of the curriculum, Grand Rounds topics are Spirituality and Psychotherapy (year two) and God Images and Object Relations (year three).

First year residents participate with the chaplain in the Spiritual Resources Group on the adult psychiatry inpatient units. Second year residents are orientated to bereavement related to perinatal death and accompany a chaplain attending to a death in labor and delivery or the neonatal intensive care units. They participate in the spirituality groups as part of their rotation in chemical dependency. Third and fourth year residents incorporate their training into outpatient practice.

Response to the curriculum will be presented along with proposed methods of outcome assessment over the training period.

**No. 10D****THE INTERFACE BETWEEN SPIRITUALITY, RELIGION, AND PSYCHIATRY: A COURSE FOR PSYCHIATRY RESIDENTS AT THE UNIVERSITY OF BRITISH COLUMBIA**

Andrea D. Grabovac, M.D. *University of British Columbia, Department of Psychiatry, 600 West 10th Avenue, Suite 574, Vancouver, BC, V5Z 4E6, Canada*

**SUMMARY:**

The "Interface between Religion, Spirituality and Psychiatry" course for psychiatry residents at the University of British Columbia promotes increased understanding of spiritual aspects of self and others and the effective translation of this knowledge into clinical practice. The mandatory 10 session didactic course is taught by faculty from diverse backgrounds, including pastoral care, counseling psychology, religious studies and psychiatry. In addition, an elective quarterly Journal Club focussed on this topic and departmental grand rounds provide opportunity for further discussion and exploration.

Improved education at the resident level is essential for raising physicians' awareness of the importance of spirituality in patient care. Teaching residents must therefore also be coupled with course evaluations that measure the efficacy of the training that residents receive, in order to determine if the goals of the educational program are being met in the most effective way. Therefore, in addition to the standard course evaluations completed by residents, course effectiveness of the original 6 session course delivered in January 2005 was evaluated using a Course Impact Questionnaire that was administered at the beginning of the course, at wk 6 and again at 6 month followup. Course effectiveness in increasing resident's confidence in performing assessments in this area and implementing treatment plans that integrate a biopsychosociospiritual understanding will be discussed.

Learning objectives for the didactic portion of the course include the current understanding of the relationship between religious and spiritual beliefs and physical and mental health, introduction to spiritual phenomenology, including spiritual emergencies (eg. Kundalini episodes), current research literature on neurobiology of spiritual experience and spiritual/religious issues in psychodynamic therapy (eg. significance of God images). By the end of the course, residents have learned the skills to take a spiritual/religious history, to incorporate information gathered into the biopsychosociospiritual understanding of the patient, and to reflect this in the diagnosis and

treatment plan. They are able to identify how their own spiritual/religious beliefs might impact their case formulation, diagnosis and management plans and recognize and work through transference and countertransference reactions. Criteria for referral to chaplains, spiritual directors or culturally based healers are reviewed.

No. 10E  
**SPIRITUALITY AND PSYCHIATRY: THE HARVARD LONGWOOD PSYCHIATRY RESIDENCY COURSE: EIGHT YEARS LATER**

John R. Peteet, M.D. *Brigham and Women's Hospital, Department of Psychiatry, 75 Francis Street, Boston, MA, 02115*

**SUMMARY:**

Twelve years ago the Harvard Longwood Psychiatry Residency Training Program introduced in an Integration Seminar for PG IV residents a session on dealing with religious and spiritual issues in psychotherapy. Continued interest in the transference, countertransference and boundary issues involved led to two, then four, then six sessions. As a result of receiving a Templeton Curriculum Award in 1998, these sessions became a full semester course "Spirituality and Psychiatry" that included more invited guest speakers; relevant material (such as taking a religious history) was also offered earlier in the curriculum. Several changes made since in the course reflect the faculty's attempt to deal creatively with the following challenges: the heterogeneity and individual character of each class; the need for balance between presentations by guest speakers and discussion of residents' own concerns; and the difficulty of being practical but not narrowly focused. Residents continue to appreciate most a focus on helping patients to deal with the religious, spiritual and moral struggles that they bring to treatment. Sessions that help them articulate what they themselves bring to these encounters have been among the most successful. Other recent expressions of interest in this area by residents and faculty include a resident-run spirituality interest group and a Psychiatry Grand Rounds where a case was presented and discussed by three experts.

**REFERENCES:**

1. Koenig, HG: *Spirituality in Patient Care: Why, How, When, and What*, Radnor, PA, Templeton Foundation Press, 2002.
2. Boehnlein JK, Editor: *Psychiatry and Religion: The Convergence of Mind and Spirit*. Washington, DC, American Psychiatric Press, 2000.
3. Josephson AM, Peteet JR (Ed): *Handbook of Spirituality and Worldview in Clinical Practice* Washington, DC, American Psychiatric Publishing, Inc., 2004.
4. Grabovac AD and Ganesan S: Spirituality and religion in Canadian psychiatric residency training. *Can J Psych* 2003 ; 48: 171-175.
5. McCarthy MK, Peteet JR. Teaching residents about religion and spirituality. *Harvard Review of Psychiatry* 2003;11:4:225-228.

**SYMPOSIUM 11—THE LONG-TERM CARE AND TREATMENT OF ELDERLY PATIENTS WITH BIPOLAR DISORDER**  
**APA Council on Aging**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to recognize:

- (1) how psychiatric/medical comorbidities affect access-to/delivery-of care for elderly patients with bipolar disorder
- (2) the range of models-of-care

(3) developments in non-pharmacologic and pharmacologic interventions

(4) the role of ethnic/cultural factors in the presentation/treatment of elderly patients with bipolar disorder

No. 11A  
**THE IMPACT OF ELDERLY PATIENTS WITH BIPOLAR DISORDER ON THE HEALTH CARE SYSTEM**

Helen H. Kyomen, M.D. *McLean Hospital, Department of Psychiatry, Harvard Medical School Division on Aging, 115 Mill Street, Belmont, MA, 02478-9106*

**SUMMARY:**

Bipolar disorder accounts for 5% to 19% of mood disorders that are identified in the elderly at treatment centers. A clear estimate of the prevalence of bipolar disorder in the elderly in the community at large is still lacking, as these elderly patients often tend to avoid mental health care, underreport psychiatric symptoms, and are cared for in nursing homes, assisted living facilities, and in other non-hospital/non-clinic settings. Still, bipolar disorder is a substantial public health problem, as it often leads to functional impairment and significant use of health care resources. The numbers of Americans over 65 years of age with psychiatric illness, including bipolar disorder, is expected to grow radically, with a projected total of 15 million in 2030 -- increased from approximately 7 million currently and 4 million in 1970. Due to these demographic changes and closer attention to the recognition and treatment of bipolar disorders in the elderly, there has been a growing awareness of the identification and multidisciplinary management of bipolar disorder among older adults. Factors thought to be of particular relevance in late-life bipolar disorder include age of onset, symptom presentation/case identification, secondary mania, psychiatric and medical comorbidity, response to treatment, and susceptibility to side effects. The growing numbers of elderly with bipolar disorder, many with psychiatric and medical comorbidities, together with increasing financial constraints from insurance companies, limited resources devoted to the care of these patients, and stigma against mental illness and the elderly, will increasingly impact health care delivery programs intended to serve elderly patients with bipolar disorder.

No. 11B  
**PREDICTORS OF FUNCTIONING AND TREATMENT OF COMMUNITY DWELLING OLDER PEOPLE WITH BIPOLAR DISORDER**

Sarah Pratt, Ph.D. *NH-Dartmouth Psychiatric Research Center, Department of Psychiatry, Main Building, 105 Pleasant Street, Concord, NH, 03301*

**SUMMARY:**

*Background:* Research indicates that aging in bipolar disorder (BD) may be associated with greater risk of hospitalization and more mental health service utilization. Although several studies have addressed clinical guidelines for the pharmacological treatment of BD in older people, little progress has been made to establish an evidence-base for psychosocial treatments, despite the association between impaired psychosocial functioning and nursing home placement. A multisite RCT of a combined skills training and health care management intervention for older people with serious mental illness, including BD, is currently underway with 183 mental health center outpatients aged 50 and older. Findings from this study will help to develop an evidence-base for interventions to improve psychosocial functioning among older people with BD. *Methods:* A comprehensive evaluation of symptoms, cognitive functioning, health, and social

and community functioning is performed at baseline and annually for three years. Half of the study participants are randomly assigned to receive skills training classes and assistance with health care from a nurse for two years. Correlations, analysis of covariance, and multiple regressions were performed to examine the degree to which symptoms (depression and psychosis) and four domains of cognitive functioning (executive functioning, verbal fluency, memory, psychomotor speed) were associated with three domains of psychosocial functioning (self-care, social functioning, community functioning) and with four aspects of health and health behavior (number of physical diseases, physical well-being, receipt of preventive health care, smoking) at baseline within the subset of 36 participants with BD. *Results:* There were no age or gender associated effects on any of the study measures of symptoms, cognition, psychosocial functioning or health. The three domains of psychosocial functioning were more strongly related to one another than were the four variables related to health. Performance was generally in the low average to average range across all cognitive tests with the exception of recall memory on the California Verbal Learning Test-II, which was mildly impaired. Cognitive functioning was related to self-care and social functioning, but not to community functioning or health. There were modest associations between psychosocial functioning and health. This study had somewhat limited power to detect significant associations among variables due to the relatively small sample size. *Conclusions:* Optimal psychosocial treatment of BD requires identification of the factors associated with functioning in a variety of domains. Interventions focused both on enhancing social supports and functioning, and facilitating health care for co-morbid medical illness hold the greatest promise for reducing the risk of nursing home placement and extending community tenure.

#### No. 11C

### TREATMENT INTERVENTIONS FOR ELDERLY PATIENTS WITH BIPOLAR DISORDER

Stephen Pinals, M.D. *Cambridge Health Alliance, Department of Psychiatry, TBD, TBD, MA, TBD*

#### SUMMARY:

Numerous factors may affect the course of bipolar disorder in elderly patients. Nonpharmacologic interventions, especially psychosocial rehabilitation services and assistance with problem solving skills and financial management, may be just as important as pharmacologic strategies -- and can be more adaptable. Several research reports have suggested that the use of mood stabilization and antipsychotic medications may be associated with favorable outcomes. However, of notable concern in the elderly are such side effects as cognitive diminution, sedation, constipation, incontinence, orthostatic hypotension, acute extrapyramidal symptoms and tardive dyskinesia. Many patients in recovery discontinued their medications. Even in short-term studies, and even when treatment effects are significant, medication adherence has been found to be problematic. The advent of new anticonvulsants and atypical antipsychotic agents has provided additional pharmacologic intervention options to treat bipolar disorder with less risk for side effects. However, insurance coverage for these relatively expensive medications is variable, so that their long-term use by elderly patients with bipolar disorder may be impracticable in some instances.

#### No. 11D

### ETHNIC AND CULTURAL ISSUES IN THE CARE OF ELDERLY PATIENTS WITH BIPOLAR DISORDER

Iqbal Ahmed, M.D. *University of Hawaii, Department of Psychiatry, 1356 Lusitana Street, 4th Floor, Honolulu, HI, 96813*

#### SUMMARY:

There is an increasing proportion of elderly who belong to minority groups in the U.S. This also applies to the elderly who suffer from bipolar disorder, and their families and caregivers.

Diagnosis given to a patient, such as bipolar disorder vs. schizophrenia, has been demonstrated to be affected by differences in culture and ethnicity between the patient and the healthcare provider. Culture and ethnicity also impact the psychopharmacological treatment of bipolar disorder due to differences in attitudes towards taking medication, treatment adherence, and pharmacokinetic and pharmacodynamic effects of drugs. These effects can be affected by ethnic differences in pharmacogenomics, dietary habits, and rates of health problems such as obesity, diabetes, and cardiovascular diseases. Culture and ethnicity of patients and their families also affect their attitudes towards psychiatric problems, and seeking of psychiatric help. There are also problems in access to culturally sensitive psychiatric care, and in the adequate utilization of patients' ethnic/cultural community supports. Culturally competent care can lead to more accurate diagnosis, increased help seeking behavior by patients and families, increased treatment adherence, more effective treatment, and greater patient and caregiver satisfaction.

#### REFERENCES:

- (1) Depp CA, Lindamer LA, Folsom DP, Gilmer T, Hough RL, Garcia P, Jeste DV: Differences in clinical features and mental health service use in bipolar disorder across the lifespan. *Am J Geriatr Psychiatry* 2005; 13:290-298.
- Bartels, SJ, Miles, KM, Dums, AR, & Pratt, SI: Factors associated with community mental health service use by older adults with severe mental illness. *J Ment Health Aging* 2003; 9: 123-135.
- A, Beyer JL, Shulman KI, Reynolds CF: Pharmacotherapy of bipolar disorder in old age. *Am J of Geriatric Psychiatry* 2004;12:342-357.
- Takeshita J; Ahmed, I: Cultural Aspects of Geriatric Psychiatry. In *Culture Competence in Clinical Psychiatry*, edited by Tseng WS, Streltzer J, Washington, D.C., American Psychiatric Press Inc., 2004.

### SYMPOSIUM 12—WHEN USUAL TREATMENTS FAIL: AUGMENTATION STRATEGIES FOR REFRACTORY SCHIZOPHRENIA

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to demonstrate an understanding of pharmacological treatment strategies for refractory schizophrenia. This symposium will address for the practicing physician and clinicians evidence for the effectiveness of different pharmacological strategies in this group of patients, the development of an overall treatment strategy of sequential treatment trials with monitoring by objective measures, the therapeutic use of novel potential treatment mechanisms and data for empirical treatment trials.

#### No. 12A

### HERBAL MEDICINAL STRATEGIES IN REFRACTORY SCHIZOPHRENIA

Richard P. Brown, M.D. *Columbia University, Department of Psychiatry, 86 Sherry Lane, Kingston, NY, 12401*

#### SUMMARY:

This lecture reviews the evidence for the use of natural and alternative treatments for negative symptoms, tardive dyskinesia, and social deficits in refractory schizophrenia. We will cover ginkgo, piracetam,

essential fatty acids, melatonin, vitamins, yoga breathing and other alternative treatments.

**No. 12B**  
**NMDA INTERVENTION STRATEGIES IN REFRACTORY SCHIZOPHRENIA**

Guochuan E. Tsai, M.D. *Harbor-UCLA Medical Center, Psychiatry, 1000 West Carson Street, F9, Torrance, CA, 90502*

**SUMMARY:**

Hypofunction of the NMDA glutamate receptor has been implicated in the pathophysiology of schizophrenia. Treatment with agents that enhance NMDA receptor function through the glycine modulatory site (D-serine, D-alanine, glycine, D-cycloserine) and glycine transporter-1 (sarcosine) improves various symptom clusters of schizophrenic patients. We will present a review of the studies of the NMDA-enhancing agents. Taking the studies together, sarcosine, is superior to other agents, and can benefit not only patients with chronic resistant symptoms, but also acutely ill persons with schizophrenia. Overall, the efficacy of the NMDA-enhancing agents further supports the hypothesis of NMDA hypofunction in schizophrenia. Both NMDA-glycine site and the glycine transporter-1 are novel targets to enhance NMDA receptor function.

**No. 12C**  
**AUGMENTATION STRATEGIES FOR THE PATIENT WITH TREATMENT REFRACTORY SCHIZOPHRENIA**

Peter F. Buckley, M.D. *Medical College of Georgia, Department of Psychiatry, 1515 Pope Avenue, Augusta, GA, 30912-3800*

**SUMMARY:**

the choice of antipsychotic and their pattern of use in the treatment of patients with schizophrenia are undergoing profound and rapid change. There is substantial polypharmacy, both with coprescription of antipsychotic medications and with the use of other agents. Efforts to enhance treatment response through augmentation strategies are common, although the evidence base to support such widespread practice is not itself compelling. This presentation will provide a review and 'current state-of-play' of the role of various augmentation strategies in the treatment of patients with schizophrenia who have refractory illnesses.

**No. 12D**  
**HIGH DOSE ANTIPSYCHOTIC STRATEGIES**

Jean-Pierre, Lindenmayer *Nathan Kline Institute/New York University School of Medicine/Manhattan Psychiatric Center, Psychopharmacology Research Program, 600 East 125th Street, Room Dunlap 1518, Wards Island, New York 10035*

**SUMMARY:**

The pharmacological choices for the treatment of schizophrenia have been significantly expanded with the availability of the atypical compounds. This also applies to their use in treatment resistant patients. Traditionally, strategies for such patients have included the use of higher than FDA approved doses of antipsychotics. This approach has also been expanded to atypical antipsychotics, based on the belief that treatment resistant patients may need higher than FDA approved dose ranges to maximize therapeutic response. Often clinicians will first increase the dose of the current antipsychotic before considering switching to another compound or to an augmentation strategy, if the response has been deemed inadequate. Although Kane et al (2003) recommend increasing doses of atypical antipsy-

chotics to selected ranges, most of these dosage ranges have not been approved by the FDA. In addition, with the exception of olanzapine there is little controlled, double-blind prospective data on the efficacy and tolerability of high doses of most atypical antipsychotics. Approximately 60% or more experts recommend increasing doses of aripiprazole, ziprasidone, haloperidol and decanoate formulations of fluphenazine. The presentation will review and evaluate the available relevant data on high dose approaches of olanzapine, risperidone, quetiapine, ziprasidone and aripiprazole and assess efficacy and safety in treatment resistant schizophrenia.

**REFERENCES:**

1. Sageman S. *J Am Acad Psychoanal and Dynamic Psychiatry* 32:125-141,2004.
2. Lane HY, Chang YC, Chiu CC, Tsai G. Sarcosine (N-methylglycine) or D-serine Treatment for Acutely Exacerbated Schizophrenia: A Double-Blind, Placebo-controlled Study. *Arch Gen Psychiatry*, 2005, in press.
3. Buckley PF Shendarkar N. Treatment Refractory Schizophrenia. *Current Opinion in Psychiatry* 2005; 18: 165-173.
4. Kane JM, Leucht S, Carpenter D, Docherty JP. Expert Consensus Guideline Series \* Optimizing pharmacologic treatment of psychotic disorders. *J Clin Psychiatry* 2003;64:5-19.

**SYMPOSIUM 13—SUBSTANCE USE DISORDERS IN THE U.S.**  
**Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to demonstrate knowledge of the prevalence, psychiatric and familial correlates of substance use disorders in the United States.

**No. 13A**  
**PREVALENCE AND CORRELATES OF PRESCRIPTION DRUGS NONMEDICAL USE AND USE DISORDERS IN THE U.S.: 1991-1992 AND 2001-2002**

Carlos Blanco-Jerez M.D. *Columbia University, Department of Psychiatry, 1051 Riverside Drive, Unit 69, New York, NY, 10032*

**SUMMARY:**

**Objective:** There is growing concern among clinicians and policy-makers about the rise of non-medical use, abuse and dependence of prescription drugs. Yet, information about changes in the prevalence and correlates of current *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)* prescription drug use disorders is lacking. The purpose of this study was to examine changes in the prevalence of prescription drug non-medical use, abuse, and dependence in the United States between 1991-1992 and 2001-2002.

**Method:** The authors compared the rates and correlates of past year prescription drugs non-medical use, abuse, and dependence using data from two large national surveys conducted 10 years apart: the 1991-1992 National Longitudinal Alcohol Epidemiologic Survey ([NLAES] n = 42 862) and the 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions ([NESARC] n = 43 093). Chi-squares were used to compare the strength of association between alcohol use disorders and other clinical and sociodemographic characteristics of the sample with rates of non-medical use, abuse and dependence within and across surveys. Logistic regression models

were used to identify predictors of non-medical use, abuse and dependence adjusting for other covariates.

Results: From 1991-1992 to 2001-2002, past year non-medical use of prescription drugs increased from 1.5% to 2.3%, while the prevalence of prescription use disorders increased from 0.3% to 0.5% (both  $p < .01$ ). The increase in prevalence of prescription drug use disorders was due to increases in non-medical use, rather than to increases in prevalence among non-medical users (conditional prevalence). In 1991-1992, individuals with lifetime history of alcohol use disorders were at increased risk of prescription drug use disorder compared to those without history of alcohol use disorder (OR=2.31, 95% CI=1.88-2.84), and that risk was even higher in 2001-2002 (OR=4.05, 95% CI=2.09-7.86). In both time periods, younger age, lower SES, lifetime history of substance use disorders also increased the risk of controlled prescription drug use disorders. Past-year treatment rates among individuals with abuse or dependence of controlled prescription drugs was 15.8% in 1991-1992 and 24.2% in 2001-2002 ( $p=.08$ ).

Discussion: The prevalence of non-medical use of controlled prescription drugs and of DSM-IV controlled prescription drug use disorders doubled between 1991-1992 and 2001-2002. Rates of treatment-seeking were low among individuals with controlled prescription drug use disorders in both time periods. Strategies to improve prevention and increase access to treatment are urgently needed.

### No. 13B ALCOHOL AND DRUG DEPENDENCE AND THE SPECIFICITY OF FAMILY HISTORY

Deborah S. Hasin, Ph.D. *Columbia University, Department of Psychiatry & Epidemiology, 1051 Riverside Drive, Unit 123, New York, NY, 10032*

#### SUMMARY:

Background. When disorders are highly comorbid, they may comprise elements of larger domains. For example, alcohol and drug dependence and antisocial personality disorder (ASP) have been proposed as components of an "externalizing" dimension, while major depression and generalized anxiety disorder have been proposed as an "internalizing" dimension. This can be examined via family history, but large, nationally representative samples where both relatives and probands entered the age of risk for drug use when drugs were widely available in the U.S. have not previously existed. Methods. Data came from the U.S. National Epidemiologic Survey on Alcoholism and Related Conditions (NESARC) conducted in 2001-2002. 43,093 respondents (probands) aged 18 and older were personally interviewed with the AUDADIS. We examined the association of proband disorders (DSM-IV alcohol and drug dependence and antisocial personality disorder [ASP], major depressive disorder [MDD] and generalized anxiety disorder [GAD]) with a family history of alcoholism, drug problems, ASP and MDD. Adjusted odds ratios from logistic regressions indicated associations, adjusting for the complex sample design with SUDAAN. Mplus was used for weighted factor analyses of the five proband disorders, and weighted Structural Equation Modeling (SEM) to simultaneously evaluate the relationships of all five proband disorders and four family histories. Results. The ORs for disorder-specific associations between proband and family history (range, 2.16 for family history of drug problems/proband drug dependence to 3.16 for family history of MDD/proband MDD) were significantly larger than cross-disorder associations (range, 0.89 for family history of drug problems/proband alcohol dependence to 1.68 for family history of MDD/proband drug dependence). Latent factor analysis indicated an internalizing factor (MDD, GAD) and externalizing factor (ASP, alcohol and drug dependence). SEM indicated that while each family history variable was significantly associated with both proband factors, family history of MDD was more strongly related to the internalizing proband factor

(0.76) than to the externalizing factor (0.31), while family history of ASP, alcohol, and drug problems were all more strongly correlated to the externalizing factor (0.35, 0.42, and 0.18, respectively) than to the internalizing factor (0.24, 0.17, and 0.07, respectively). Conclusions. Using a U.S. data set where many relatives entered the age of risk for drug use when drugs were available in the U.S., the disorders studied showed common as well as distinct familial patterns. Twin studies show little evidence for shared familial environmental influence on the etiology of these disorders, so family history suggests genetic effects. Molecular genetics studies should investigate multi-disorder as well as single-disorder phenotypes.

### No. 13C PREVALENCE, CORRELATES, AND COMORBIDITY OF DSM-IV DRUG USE DISORDERS

Bridget F. Grant, Ph.D. *LEB, NIAAA, 5635 Fishers Lane, Room 3077, Bethesda, MD, 20892-9304*

#### SUMMARY:

Background: Little is known about the current prevalence, correlates and comorbidity of DSM-IV drug use disorders in the United States.

Methods: Using the large NIAAA National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) (N=43,093), crosstabulations were used to estimate prevalence and correlates of drug use disorders in the United States. Linear logistic regression analysis was performed to determine the strength of the associations between drug use disorders and Axis I and II disorders.

Results: The 12-month and lifetime prevalences of drug use disorder in the United States in 2001-2002 were 2.0% and 10.3% in the U.S. general population. Being Native American, young, never married and of lower socioeconomic status increased risk of drug use disorders, while being Asian or Hispanic reduced risk. The mean age at onset of any drug use disorder was 21.5 years and the mean age at first treatment was 25.7 years, representing a 5-year lag between onset and age at first treatment of drug use disorders. Drug use disorders were highly comorbid with alcohol use disorders, mood disorders, anxiety disorders, and 7 of the 10 personality disorders.

Discussion: Drug use disorders are highly prevalent in the U.S. population and highly comorbid with other DSM-IV Axis I and II disorders. Assessment of individuals presenting with drug use disorders should include other Axis I and II disorders, especially alcohol use disorders, panic disorder with agoraphobia, avoidant, dependent, and antisocial personality disorders.

### No. 13D LIFETIME COMORBIDITY OF DSM-IV MOOD AND ANXIETY DISORDERS AND SPECIFIC DRUG USE DISORDERS: RESULTS FROM THE NATIONAL EPIDEMIOLOGIC SURVEY ON ALCOHOL AND RELATED CONDITIONS

Kevin Conway Ph.D. *National Institute on Drug Abuse, Epidemiology Research Branch, 6001 Executive Boulevard, MSC 9589, Bethesda, MD, 20892*, Wilson M. Compton III, M.D., Frederick S. Stinson, Ph.D., Bridget F. Grant, Ph.D.

#### SUMMARY:

Objective: To present nationally representative data on the lifetime prevalence and comorbidity of eight specific drug use disorders, separately for abuse and dependence, and mood and anxiety disorders. Method: Data come from a representative sample (N=43,093) of the United States civilian, non-institutional population 18 years and older. Diagnoses of mood, anxiety, and drug use disorders were based upon face-to-face personal interviews using the Alcohol Use

Disorder and Associated Disabilities Interview Schedule-DSM-IV Version (AUDADIS-IV). *Results:* Associations between specific mood and anxiety disorders and specific drug use disorders were virtually all positive and statistically significant ( $p < 0.05$ ). In general, associations were greater for dependence than abuse, greater for mood than anxiety disorders, and in some instances stronger among women than men ( $p < 0.05$ ). Large odds ratios also were observed for individuals with comorbid mood and anxiety disorders. *Conclusion:* The comorbidity between specific mood and anxiety disorders and specific drug use disorders is pervasive in the U.S. population. Findings suggest that comorbid psychiatric disorders may increase the risk of greater involvement in more serious illicit drug use disorders and that the greater comorbidity between mood and anxiety and drug use disorders among women may reflect greater deviance and psychopathology among drug using women than men. Findings also suggest that drug abuse prevention and intervention efforts should address other psychiatric conditions. Further, definitions of drug use disorder phenotypes should give careful consideration to other psychiatric conditions as meaningful characteristics of case heterogeneity.

No. 13E  
**THE RELATIONSHIP OF FAMILY HISTORY TO COCAINE AND CANNABIS FIRST USE AND DEPENDENCE**

Gary Heiman, Ph.D. *Columbia University, Epidemiology, 722 West 168th Street, 7th floor, New York, NY, 10032*

**SUMMARY:**

*Background.* A common assumption about the etiology of drug dependence is that environmental factors lead to drug use, while genetic factors lead to dependence. However, heritable traits (e.g. novelty-seeking) lead to drug use, and heritability estimates for use (as distinct from dependence) are similar to heritability estimates for dependence in some studies, suggesting further examination of this common assumption. One way to do this is to investigate the relationship of family history of drug problems to (a) drug use, and (b) conditional dependence, i.e., dependence only among drug users. *Methods.* The relationship of family history of drug problems to marijuana and cocaine use and DSM-IV dependence was examined in the 43,093 respondents to the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) survey. First-degree relatives (parents, full siblings, and children) were included. For cannabis and cocaine, separate survival analyses were conducted for two outcomes: use of the drug, and dependence on the drug among respondents who had used the drug by the time of the survey (conditional dependence). Associations were indicated using hazard ratios (HR) generated with Cox proportional hazards models, adjusted for gender, race, birth cohort, and education (did or did not attend college). Sudaan was used to take into account the complex sample design. Family history was denoted by a continuous variable representing the proportion of all first degree relatives with histories of drug problems. *Results.* The HR for marijuana use was 8.93 (95% CI 7.67-10.40); for cocaine use it was 12.86 (9.98-16.58). The HR for conditional dependence on marijuana was 5.19 (3.48-7.74) and for cocaine it was 3.19 (1.73-5.89). *Conclusions.* The fact that family history was more strongly related to cannabis or cocaine use than to dependence among users suggests the need for further examination of the common assumption about environment influencing use and genes influencing dependence.

**REFERENCES:**

1. Compton W, Volkow ND. Major increases in opioid analgesic abuse in the United States: Concerns and strategies. *Drug & Alcohol Dependence*. In press.

2. Hasin D, Grant B: Major depression in 6,050 former drinkers: association with past alcohol dependence. *Archives of General Psychiatry* 2002; 59:794-800.
3. Grant BF, Stinson FS, Dawson DA, et al. Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from the NESARC. *Archives of General Psychiatry* 2004; 61:807-816.
4. Regier DA, Farmer ME, Rae DS, et al. Comorbidity of mental disorders with alcohol and other drug abuse: results from the Epidemiologic Catchment Area (ECA) Study. *JAMA*. 1990;264:2511-2518.
5. Kendler KS, Karkowski LM, Neale MC, Prescott CA. Illicit psychoactive substance use, heavy use, abuse, and dependence in a US population-based sample of male twins. *Arch Gen Psychiatry*. 2000 Mar;57(3):261-9.

**SYMPOSIUM 14—THE MID-LIFE CRISIS AS INTERPRETED IN FILM AND TELEVISION**

**EDUCATIONAL OBJECTIVES:**

- At the end of the symposium, the participant would:
1. Appreciate the multiple meanings of mid-life crisis (MLC) as portrayed in film.
  2. Relate certain types of psychopathology to MLC
  3. Decide whether depression may play a part in MLC.
  4. Appreciate the narrative power of film in its ability to dramatize MLC.

No. 14A  
**DEPRESSION AND OTHER PSYCHOPATHOLOGY AT MID LIFE**

Anton C. Trinidad, M.D. *George Washington University, Dept. of Psychiatry/Psychosomatic Medicine, 2150 Pennsylvania Avenue NW, Washington, DC, 20037*

**SUMMARY:**

One way of understanding mid-life crisis (MLC) is to see it as an unexpectedly rough transition from Erik Erikson's Intimacy versus Isolation Phase to the succeeding stages - a failure at achieving a smooth epigenetic lifeline as it were. In film, psychopathology along the lines of this developmental "problem" is strongly hinted at if not out rightly blamed as cause. Film arguably trumps up psychopathology as source of narrative conflict propelling the plot of the story. Despite this tendentiousness, film can efficiently illustrate the ripples such psychopathology creates in people's lives. One other issue germane to MLC is a diagnosable depression. Various film examples will be discussed like Billy Wilder's *Sunset Boulevard* and Stephen Daldry's *The Hours*. Pathology within a dyadic relationship also provides source of MLC as in Ridley Scott's *Thelma and Louise*, Ingmar Bergman's *Scenes from a Marriage* and various films by Woody Allen. Thus, in this part of the symposium, the focus will be on understanding MLC as a developmental derailment in adulthood and as a representation of depression.

No. 14B  
**THE MIND OF THE MID-LIFE TV ADDICT**

Robert J. Boland, M.D. *The Miriam Hospital/Brown University, Department of Psychiatry, 345 Blackstone Blvd., Providence, RI, 02906*

**SUMMARY:**

The mid-life crisis, as coined by Jaques (1965), and described by Levinson (1976) and others remains a controversial idea in professional circles. In popular culture, however, it has reached an axiomatic level of acceptance, and can be used to explain behaviors ranging from the neurotic to true sociopathy. Given the dramatic potential of these conflicts, it is not surprising that it is the subject of popular media. Regardless of the validity of the concept, the presentation of such crises in film and video are useful mediums for exploring developmental challenges. Like most crises, the mid-life crisis is not really a developmental stage in itself, but rather a recapitulation of earlier stages. Thus, using, for example, an Ericksonian model, one can see a reemergence of the basic conflicts typifying all earlier stages, as the adult wrestles not only with intimacy and generativity, but questions of autonomy, and basic trust. Exploring these crises in the dramatic arts can be not only entertaining, but a convenient way of crystallizing complex and time-dependent concepts not easily observed on a day-to-day basis. In exploring the various stages of the mid-life crisis, the emphasis will be on television representations, as television's use of serialized narrative contains the potential for a more in-depth exploration of character development, one that movies must often capture in a more compressed fashion. Admittedly, this potential to show character development is often unrealized in popular media, however certain television show, such as *Sex in the City*, *The Sopranos*, *The Mind of the Married Man*, and *Entourage* (which also explores the more recently coined "quarter-life crisis") among others, have explored these developmental issues in some depth. Examples of various conflicts will be viewed, and the audience will be invited to discuss, among other themes, the ability of this media to portray conflicts relevant to that in real-life middle age, and what light is shed, if any, on the validity of this concept.

**REFERENCES:**

1. Tredell N ed.: *Cinemas of the Mind: A Critical History of Film Theory*. Cambridge: Icon Books, 2002.
2. Jaques, E., 1965: *Death and the Midlife Crisis*. *Int.J.Psycho-Analysis*; 46: 502-514.

## **SYMPOSIUM 15—FIRST-EPIISODE SCHIZOPHRENIA: HOW CAN WE IMPROVE TREATMENT OUTCOME?**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to recognize special treatment strategies in first episode schizophrenia focusing on various outcome domains like positive, negative, and affective symptoms, cognitive impairments, social functioning, and quality of life.

### **No. 15A MEASURES TO PREVENT RELAPSE IN LONG-TERM TREATMENT: RESULTS FROM THE GERMAN RESEARCH NETWORK ON SCHIZOPHRENIA**

Wolfgang Gaebel, M.D. *Heinrich-Heine University, Department of Psychiatry, Duesseldorf, D-40629, Germany*, Hans-Jurgen Moeller, M.D.

**SUMMARY:**

Objective: To compare the effects of an atypical vs a low-dose typical antipsychotic in an industry-independent acute and long-term study on first episode schizophrenia. To identify patients suited for drug withdrawal after one year of stable maintenance treatment, and to evaluate the efficacy of prodrome-based early intervention treatment with either a antipsychotic or a benzodiazepine.

Method: Randomized double-blind trial with risperidone vs haloperidole in ICD-10 first episode schizophrenia (8 weeks acute, N=302; 1 year maintenance, N=176; 1 year randomized open withdrawal plus early intervention with either antipsychotic or lorazepam, N=57) in 13 German psychiatric university departments.

Results: Hitherto, no relapse (corresponding to the predefined criteria) was observable in the first treatment year under regular treatment conditions. On average, psychopathological symptoms were moderate after acute treatment and decreased steadily. Drug side-effects were low, and although compliance on average was high, about 65% of the patients dropped out during the first study year.

Regarding the second year about 20 % were not eligible for drug discontinuation and about 25 % chose the converse treatment as assigned.

Conclusion: Treatment in first episode schizophrenia is effective under both antipsychotics however these patients are at high risk for treatment drop-out. This emphasizes the need for a special support program. Additionally, various long-term treatment strategies should be provided to take patients preferences into account.

\*Funded by the German Ministry of Education and Research (BMBF).

### **No. 15B THE EUROPEAN FIRST-EPIISODE SCHIZOPHRENIA TRIAL**

René S. Kahn, M.D. *Heidelberglaan 100, Utrecht, 3584 CX, The Netherlands*, Wolfgang W. Fleischhacker, M.D.

**SUMMARY:**

Background: Most of the studies comparing second generation antipsychotics with classical neuroleptics have been conducted in more or less chronic schizophrenia patients. Such studies were usually conducted in highly selected samples, which were designed and financed by the producer of the drug tested in the respective study. These and other facts have led to an ongoing discussion with regard to the true effectiveness of new generation antipsychotics.

Aims: The aim of the European First Episode Schizophrenia Trial (EUFEST) is to compare treatment with amisulpride, quetiapine, olanzapine and ziprasidone to a low dose of haloperidol in first episode schizophrenia patients with little previous exposure to antipsychotics.

Methods: 500 patients aged 18-40 meeting DSM-IV criteria for schizophrenia, schizoaffective disorder or schizophreniform disorder are randomly allocated to one year of treatment with one of the drugs under study. The primary measure for effectiveness is retention of treatment defined as the continuation of use of the study drug within the study dose range and without the addition of other antipsychotic drugs. Loss of retention can be the result of insufficient clinical effect, or a lack of tolerability or acceptance. Secondary objectives include the comparison of changes in different dimensions of psychopathology, of side effects, compliance, social needs and quality of life, substance abuse and cognitive functions, all measured by standardized rating instruments.

Conclusions: At present, more than 350 patients have been recruited and randomized in the following countries: Austria, Belgium, Bulgaria, Czech Republic, Germany, France, Israel, Italy, the Netherlands, Poland, Rumania, Spain, Sweden and Switzerland: The study should be finished by the end of 2006 and is expected that results will yield relevant clinical information with regard to the effectiveness spectrum of the second generation antipsychotics derived from a large clinically relevant sample of schizophrenia patients. This effort represents the first independently designed transeuropean schizophrenia treatment trial.

## No. 15C

**MANAGEMENT OF IMPAIRED COGNITION**

Stephen R. Marder, M.D. *Semel Institute of Neuroscience and Human Behavior, Department of Psychiatry, UCLA, Bldg 210, Room 130, West Los Angeles VA HCC, 11301 Wilshire Boulevard, Los Angeles, CA, 90073-1003*

**SUMMARY:**

Impairments in neurocognition including memory, attention, executive functioning, and psychomotor performance are a core feature of schizophrenia. Unlike positive symptoms which tend to be episodic, cognitive impairments are usually present at the onset of the illness and remain relatively stable over the course of the patient's life. These impairments tend to be an independent dimension of the illness with little relationship to positive symptoms. The importance of neurocognitive symptoms relates to the ability of patients with schizophrenia to function in the community. That is, the relationship between functional outcomes - which include the ability to function vocationally and socially - and neurocognitive impairments are stronger than the relationships with positive symptoms. This report will focus on both psychosocial and pharmacological approaches for improving impaired cognition in schizophrenia. In addition, it will describe recent efforts to promote drug development in this area.

## No. 15D

**SOCIAL COGNITION IN SCHIZOPHRENIA: IMPAIRMENTS AND PSYCHOLOGICAL TREATMENT**

Wolfgang Woelwer, Ph.D. *University Duesseldorf, Department of Psychiatry, Bergische Landstrasse 2, Dusseldorf, D-40629, Germany*, Nicole Frommann, Ph.D., Wolfgang Gaebel, M.D.

**SUMMARY:**

**OBJECTIVE:** Impairments in social cognition are well known in schizophrenia. Such impairments seem to play a crucial role in patients' poor social functioning. In particular impairments in facial affect recognition are known to be a trait-like characteristic in schizophrenia mostly unaffected by traditional treatment. The present study should contribute to the open question of treatment options for these impairments.

**METHODS:** A special Training of Affect Recognition (TAR) was evaluated using a pre-post-control group design with three groups of n=18 partly remitted schizophrenia patients each. To control for nonspecific effects of implicit cognitive training, TAR was compared with a Cognitive Remediation Training (CRT) aiming at improvement of basic neurocognitive functioning. To control for nonspecific effects the two active training groups were compared with a control group without additional training (CG).

**RESULTS:** Patients under TAR showed an improvement in facial affect recognition, with recognition performance after training approaching the level of healthy controls from former studies. Patients under CRT and those without training (CG) did not show improvements in affect recognition, though patients under CRT improved in some memory functions.

**CONCLUSIONS:** Improvements in disturbed facial affect recognition in schizophrenia patients is not obtainable with a traditional cognitive remediation program like CRT, but needs a functional specific training like the newly developed TAR.

## No. 15E

**EFFECTS OF PHARMACOLOGICAL TREATMENT ON THE QUALITY OF LIFE**

George Awad *Humber River Regional Hospital, Chief of Psychiatry, 2175 Keele Street, Suite 243, Toronto, ON, M6M 3Z4, Canada*

**SUMMARY:**

Traditionally and historically, most of the focus in Clinical Trials of new antipsychotics as well as in regular clinical practice has been the reduction of symptomatology. Over the last two decades, subjective aspects of drug therapy such as quality of life, neuroleptic-induced dysphoria and satisfaction with medications has been, finally recognized as important outcomes of drug therapy.

In this presentation, these outcomes, particularly the issue of quality, will be overviewed based on our research data as well as the recent literature. The concept of quality of life and its measurement in schizophrenia will be reviewed and data from our recent studies will be presented about the impact of new and old antipsychotics on quality of life in schizophrenia.

**REFERENCES:**

1. Gaebel W et al: Pharmacological long-term treatment strategies in first episode schizophrenia. Study design and preliminary results of an ongoing RCT within the German Research Network on Schizophrenia. *Eur Arch Psychiatr Clin Neurosc* 2004 254: 129-44.
2. none.
3. Marder, S.R. and W. Fenton, Measurement and Treatment Research to Improve Cognition in Schizophrenia: NIMH MATRICS initiative to support the development of agents for improving cognition in schizophrenia. *Schizophr Res*, 2004. 72(1): p. 5-9.
4. Wolwer W, Frommann N, Halfmann S, Piaszek A, Streit M, Gaebel W: Remediation of impairments in facial affect recognition in schizophrenia: Efficacy and specificity of a new training program. *Schizophr Res*. 2005 Aug 23; [Epub ahead of print].
5. Awad AG, Voruganti L, Impact of Atypical Antipsychotics on Quality of Life in Patients with Schizophrenia, *CNS Drug* 2004; 18: 877-893.

**SYMPOSIUM 16—ADOLESCENT BRAIN DEVELOPMENT: IMPLICATIONS FOR PSYCHIATRIC TREATMENT**  
**National Institute on Drug Abuse****EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium the participant should be able to demonstrate a fundamental understanding of recent advances in our understanding of adolescent brain development, its role in cognitive and emotional development, drug abuse and addiction, and its implication for understanding and psychiatric disorders, such as substance use disorder.

## No. 16A

**ADOLESCENT BRAIN DEVELOPMENT: A PERIOD OF VULNERABILITIES AND OPPORTUNITIES**

Ronald E. Dahl, M.D. *University of Pittsburgh, Dept of Psychiatry, 3811 O'HARA ST/THOMAS DETRE HALL, Room E-724, Pittsburgh, PA, 15213*

**SUMMARY:**

Adolescent development is a period of special opportunities as well as vulnerabilities with respect to a wide range of behavioral and emotional problems in youth. This presentation considers the role of brain/behavior/social-context interactions during pubertal maturation that can influence these developmental trajectories in positive and negative ways. A model is described that focuses on neurobehavioral changes at puberty that lead to an increased tendency toward risk-taking and sensation-seeking in adolescence. These biologically-based changes in drives, emotions and motivations ("ignit-



ing passions'') often emerge early in adolescence, whereas the gradual and relatively prolonged maturation of self-regulatory skills and judgment continue to develop through late adolescence. This may be particularly relevant to adolescents living in social contexts that create challenges to the gradually emerging skills in self-control. Data in support of key aspects of this model are described. The clinical and social policy implications of this model and its relevance to prevention science are also discussed.

No. 16B

### **INTERACTING EFFECTS OF CANNABIS AND TOBACCO USE ON BRAIN FUNCTION IN ADOLESCENTS**

Leslie K. Jacobsen *Yale University School of Medicine, Department of Psychiatry, 2 Church Street South, Suite 207, New Haven, CT, 06519*, Kenneth R. Pugh, Ph.D., Robert T. Constable, Ph.D., Michael Westerveld, Ph.D., W. Einar Mencl, Ph.D.

#### **SUMMARY:**

**Background:** Cannabis remains the most widely used illicit substance by adolescents and is typically consumed in the context of ongoing tobacco use. Human studies have shown that both substances exert effects on cognitive function, however little is known about possible interacting effects of these drugs on brain function and cognition during adolescent development.

**Methods:** Using functional magnetic resonance imaging, we compared alterations in brain function associated with nicotine withdrawal in abstinent adolescent cannabis users and control subjects matched for tobacco use while subjects performed verbal working memory, encoding, and retrieval tasks.

**Results:** Delayed recall of words deteriorated during nicotine withdrawal among cannabis users but not among controls. Nicotine withdrawal increased task related brain activation in adolescent cannabis users relative to controls when verbal working memory load was high and during verbal encoding (learning). In contrast, nicotine withdrawal decreased task related activation in adolescent cannabis users relative to controls during early and delayed recall of words. Activation of frontal cortical regions during verbal encoding was positively associated with accuracy of recognition memory in controls, but not in cannabis users.

**Conclusions:** These observations suggest that cannabis use during adolescent development disrupts neurocircuitry supporting verbal encoding and retrieval, and that deficits in verbal memory associated with disruption of these neurocircuits are unmasked during nicotine withdrawal.

No. 16C

### **PREFRONTAL-LIMBIC BRAIN MATURATION AND RISK FOR PSYCHOPATHOLOGY IN ADOLESCENCE**

Isabelle M. Rosso, Ph.D. *McLean Hospital, Psychiatry, 115 Mill St., Brain Imaging Center, Belmont, MA, 02478*, Marisa M. Silveri, Ph.D., Staci A. Gruber, Ph.D., Deborah A. Yurgelun-Todd, Ph.D.

#### **SUMMARY:**

Adolescence is a period marked by considerable psychological and cortical brain maturation, as well as increased risk for onset of a number of psychiatric disorders. This suggests that deviations of normal adolescent neurobehavioral development may confer risk and/or mediate the emergence of psychiatric symptoms during this period. This presentation will review behavioral and neuroimaging research from our laboratory that has aimed to characterize the maturation of prefrontal-limbic brain networks during normal adolescence, as well as abnormalities in these networks among individuals

at risk for, or in the early stages of, major psychiatric disorders. We will highlight recent data suggesting that amygdala volume reductions are a neurodevelopmental characteristic of pediatric depression and first-episode adult bipolar disorder. These and other findings presented will suggest that abnormalities of the amygdala and its associated networks may represent neural markers of disorders of emotion regulation, and perhaps markers of a preexisting vulnerability to affective dysregulation. Implications for early identification and treatment of adolescents at risk for disorders of emotion regulation will be discussed.

No. 16D

### **THE IMMATURE ADOLESCENT BRAIN AND COGNITIVE CONTROL**

Beatriz Luna *Western Psychiatric Institute and Clinic, Laboratory of Neurocognitive Development, 3501 Forbes Ave. Oxford #738, Pittsburgh, PA, 15213*

#### **SUMMARY:**

Adolescence is the period of initial transition to mature adult cognitive control of behavior that are supported by important brain maturation processes such as synaptic pruning and myelination. This is also a time when major psychiatric illness becomes evident. The interaction between cognitive development and brain maturation however, are poorly understood. Our objective is to characterize the changes in behavior and brain function that underlies the maturation of cognitive control of behavior as measured by the ability to voluntarily inhibit responses and to use working memory to for goal directed behavior.

Subjects performed an oculomotor response inhibition task (anti-saccade) where one refrains from looking at suddenly appearing visual targets and instead cognitively directs the eyes to the mirror location. This tests voluntary response inhibition, a critical process of cognitive control of behavior that enables us to choose the appropriate responses for goal directed behavior while inhibiting enticing but task inappropriate responses. Subjects also performed the classic oculomotor delayed response task that is a well-established task to characterize working memory. Subjects are instructed to move their eyes directed solely by the working memory representation of a previously presented target. Eye movement responses were recorded outside and inside an fMRI scanner. Block and event related fMRI tasks were used to delineate the brain circuitry underlying response inhibition and working memory.

Behavioral results indicate that by mid-adolescence adult levels of cognitive control become evident. The ability to inhibit an impending saccade to a peripheral target improved from childhood to mid-adolescence as did the speed to respond to different cognitive demands. The ability to use working memory indicated initial stages of adult levels in mid-adolescence but mature use of working memory was not evident until late adolescence. fMRI results indicated that the brain function supporting adult level cognitive control in adolescents is different from that of adults. While adolescents and adults recruited a similar brain network, adolescents relied primarily in prefrontal cortex while adults recruited regions not essential to the task but that enhanced its efficiency such as premotor response planning regions and hippocampus. Brain function in adolescents resembled that of adults performing a task with a higher cognitive load.

These results suggest that while adolescents can appear to have mature cognitive control of behavior in a well controlled environment they need to exhaust brain resources used for high level computation to a greater degree than adults. Using resources needed for cognitive control of behavior as is provided by prefrontal cortex may set a system that is more vulnerable to the lack of cognitive control. Maturity is reached when brain function is shared in a collaboratively across a widely distributed circuitry that frees up prefrontal systems

that can be used for more demanding or competing tasks. The transition to collaborative brain function may be supported by increased efficiency in brain function provided by myelination and synaptic pruning that may be compromised in psychiatric illness.

#### REFERENCES:

1. Ameri A: The effects of cannabinoids on the brain. *Progress in Neurobiology* 1999; 58:315-348.
2. Rosso IM, Cintron CM, Steingard RJ, Renshaw PF, Young AD, Yurgelun-Todd DA: Amygdala and hippocampus volumes in pediatric major depression. *Biol Psychiatry* 2005; 57(1):21-6.
3. Journal (Review) - Luna, B., & Sweeney, J.A.. The emergence of collaborative brain function: fMRI studies of the development of response inhibition [Review]. *Annals of the New York Academy of Sciences*, 1021, 296-309. (2004).

## SYMPOSIUM 17—ETHNICITY, AGE, AND GENDER AS FACTORS IN THE MANAGEMENT OF ANXIETY AND DEPRESSION

#### EDUCATIONAL OBJECTIVES:

Analyze how the treatment of anxiety and depression is affected by ethnicity, age, and gender Describe the role of ethnopharmacology in the treatment of patients with anxiety and depression Outline the diagnosis and management of anxiety and depression in children and adolescents Analyze how gender influences therapeutic interventions in patients with anxiety and depression Identify the risks and benefits associated with current agents used in the management of anxiety and depression

#### No. 17A

### A CLINICAL UPDATE ON RESPONSE RATES IN PSYCHIATRIC DISORDERS AND ETHNICITY

DiAnne Bradford, M.D. *Moorehouse School of Medicine, 720 Westview Drive, SW, Atlanta, GA, 30310-1495*

#### SUMMARY:

It has been known for over 20 years that there are polymorphisms of *CYP450* enzymes, which metabolize most drugs in common clinical use. It is also known that people of Asian and African descent carry many more novel alleles which are responsible for coding for reduced metabolic activity, and thus may be metabolizing drugs - including psychotropics - differently from Caucasians. Latinos may also carry novel alleles, and represent a heterogeneous population - those originating in the Caribbean vs Central and South American. *CYP2D6* is the most widely studied *CYP450* enzyme, with over 40 alleles discovered to date. These alleles can be divided into functional, reduced, and non-functional, depending upon the level of metabolic activity for which they code. People of African and Asian descent carry a much higher frequency for reduced function alleles (40%-45%) resulting in slower metabolic rates compared with Caucasians. Nonetheless, federal agencies still do not require pharmacogenetic, pharmacokinetic, or efficacy studies in these populations. A review will be given on what is known about differential response to psychotropic treatment in minority populations.

#### No. 17B

### IDENTIFYING AND TREATING DEPRESSIVE AND ANXIETY DISORDERS IN CHILDREN AND ADOLESCENTS

Melissa P. DelBello, M.D. *University of Cincinnati College of Medicine, Department of Psychiatry and Pediatrics, 231 Bethesda Avenue, ML 559, Cincinnati, OH, 45267-0559*

#### SUMMARY:

Depressive and anxiety disorders commonly present during childhood and adolescence. However, the identification and management of depressive and anxiety disorders in children and adolescents are challenging for parents, teachers, and health care providers. These disorders commonly present with each other as well as other co-occurring illnesses and are associated with significant morbidity and mortality. Early intervention is critical during this developmentally sensitive period. Understanding the interaction of various biological, psychological, and social factors may lead to establishing a multimodal treatment approach. Prior investigations suggest that several modalities are effective for the treatment of children and adolescents with anxiety and depressive disorders, including psychotherapeutic and pharmacological interventions. This presentation will explore the phenomenological and etiological characteristics of depressive and anxiety disorders in children and adolescents as well as examine the critical components to early diagnosis and effective clinical management of children and adolescents with these disorders.

#### No. 17C

### TREATMENT CONSIDERATIONS IN SPECIAL POPULATIONS: SEX DIFFERENCES

Diana O. Perkins, M.D. *Univ. of North Carolina, School of Medicine, Department of Psychiatry, 252, Medical School Wing D, University of North Carolina, Chapel Hill, NC, 27599-7160*

#### SUMMARY:

Depressive and anxiety disorders are among the most common psychiatric diseases, and the prevalence of these psychiatric disorders is approximately two-fold higher in females than males. Although the increased prevalence of depression and anxiety in women is well documented, there have been far fewer studies exploring gender differences in phenomenology and treatment response. Despite our limited knowledge of gender variations in the psychological, social, and physiological aspects to these disorders, recent trials have contributed to better understanding in this area. There is evidence that supports potential differences between men and women in 3 specific areas: characteristic symptoms, course of illness, and comorbidities. We now know that women are twice as likely as men to experience episodes of depression and/or anxiety throughout their childbearing years. The exact etiology of this difference is unclear, although psychosocial, neurobiological, and physiologic factors are all major contributors. Clinicians need to be more aware of the phenomenology of depression and anxiety disorders to better allow them to select appropriate treatments and assess therapeutic response.

#### No. 17D

### NEW PHARMACOLOGIC APPROACHES IN TREATING DEPRESSION AND ANXIETY

David E. Adson, M.D. *University of Minnesota, 2450 Riverside Avenue, Minneapolis, MN, 55454*

#### SUMMARY:

Major depressive and anxiety disorders each have a lifetime prevalence of between 16%-19% in the general population in the United States. In many cases, these base rates overlap as depressed patients have an approximately 60% incidence of a co-existing anxiety disorder, and anxious patients have similar rates of depression. Both disorders have a significant morbidity and mortality especially if not treated.

Treatment with an antidepressant, usually an SSRI, is a reasonable first choice for those individuals with either condition, and is in accordance with current practice guidelines. However, many individuals fail to respond to this treatment modality. As a result, those

with residual anxiety or even the primary condition of depression or anxiety are frequently treated with benzodiazepines. This class of medications will often not address residual depressive symptoms, and many patients encounter problems with sedation, cognitive impairments and habituation. Accordingly, alternative treatments, including the second-generation antipsychotics (SGAs) have been explored for use in this population. The number of robust studies utilizing the SGAs in depressed or anxious patients is not large, but some signals suggesting efficacy are emerging. This research from the standpoint of efficacy will be reviewed. Considerations of expense and the risks versus benefits of using this class of medications will also be discussed.

#### REFERENCES:

1. Bradford LD: CYP2D6 allele frequency in European Caucasians, Asians, Africans, and their descendants. *Pharmacogenetics* 2002; 3:229-343.
2. Bhavé S, Nagpal J: Anxiety and depressive disorders in college youth. *Curr Opin Pediatr* 2003; 15:483-490.
3. Sloan D, Kornstein S: Gender differences in depression and response to treatment. *Psychiatr Clin N Am* 2003; 26:581-594.
4. Adson DE, Kushner MG, Eiben KM, Schulz SC: Preliminary experience with adjunctive quetiapine in patients on selective serotonin reuptake inhibitors. *Depress Anxiety* 2004; 19:121-126.

### SYMPOSIUM 18—PERSONALITY DISORDERS AND COMORBIDITY: PREDICTIVE FACTORS AND CLINICAL IMPLICATIONS

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to recognize predictive factors in the treatment of comorbid personality and other disorders and to be able to follow clinical guidelines, especially concerning comorbid depressive disorder, addiction, gender issues and specific pharmacotherapeutic strategies

#### No. 18A

### PERSONALITY DISORDERS AND AFFECTIVE DISORDERS: PLOUGHING THE SANDS OR FERTILE SOIL? PREDICTORS AND CLINICAL IMPLICATIONS

Simone Kool, Ph.D. *Mentrum Mental Health Institute, Polikliniek West, Frederik Hendrikstraat 47, Amsterdam, 0031 20 4634828, The Netherlands*, Jack Dekker, Ph.D.

#### SUMMARY:

Comorbidity of personality disorders and affective disorders, especially depressive disorder has important clinical consequences; the main evidence in literature will be presented which shows that both diagnosis and treatment should be effectuated as thoroughly as possible in order to fertilize the therapeutic soil. In the process of diagnosing, it is recommended that all different aspects of personality including the nature and severity of both depressive and personality disorder, social functioning and quality of life, are being assessed. These findings can be integrated in the choice of the treatment to be offered to the individual patient.

Predictors of outcome will be presented such as nature and severity of personality pathology and of depression, coping mechanisms, social functioning and quality of life.

An overview will be given of the most effective treatment strategies, which ideally should be effectuated according to protocolized manuals. Clinical recommendations will be given and pitfalls discussed, to avoid getting into ploughing the sands.

#### No. 18B

### EFFICACY OF DEPRESSION TREATMENT IN PATIENTS WITH OR WITHOUT COMORBID PERSONALITY DISORDERS: DOES CLINICAL LORE REFLECT THE FINDINGS FROM THE LITERATURE?

Robert A. Schoevers, Ph.D. *Mentrum Mental Health Institute, Program Director, 2e constantijn Huijgensstraat 37, Amsterdam, 1054 AG, The Netherlands*, Simone Kool, Ph.D., Henricus L. Van, M.D., Jack J. Dekker, Prof. Dr., Mariëlle Hendriksen, M.S.C.

#### SUMMARY:

*Background* : According to clinical lore, personality pathology has a negative influence on the outcome of therapy of depressive disorders. The evidence in the literature is largely inconclusive on this issue. This may be explained by methodological differences between published studies.

*Objective* : To present a meta-analysis of the results of Randomised Controlled Trials with pharmacotherapy, psychotherapy and combined therapy in the treatment of depression with comorbid personality disorders.

*Methods* : Systematic literature search for RCT's in adult ambulatory patients with major depressive disorder and comorbid PD's; pooling of data and meta-analysis according to strict methodological criteria.

*Results* : The difference in remission rates between the groups with and without personality disorders in high quality pharmacotherapy studies was 3 %; this difference was neither statistically significant nor clinically relevant. Studies on psychotherapy and combined therapy showed opposing results, but could not be pooled in a meta-analysis.

*Limitations* : Only a limited number of studies could be included in the meta-analysis. Due to lack of data, analyses of drop-out rates could not be made.

*Conclusion* : When only data from high quality RCT's are included, comorbidity of personality disorder and major depression does not have a negative effect on the treatment outcome of pharmacotherapy for major depression.

#### No. 18C

### THE RELATION BETWEEN PERSONALITY, PATHOLOGY, AND PATHOLOGICAL GAMBLING

R. Michael Bagby, Ph.D. *Ctr. for Addiction & Mental Health, University of Toronto, Department of Psychiatry, 250 College Street, Toronto, ON, M5T 1R8*, Peter Farvolden, Ph.D., Tony Toneatto, Ph.D., Eric Bulmash, B.A.

#### SUMMARY:

The goal of this investigation was to examine the prevalence of personality disorders (PDs) using both self-report and interview-based methods of assessment in a sample of non-treatment seeking pathological gamblers (PGs). PGs were compared with non-pathological gamblers (NPGs) on the self-report Personality Diagnostic Questionnaire-IV (PDQ-4+) and the interview-based Structured Clinical Interview for DSM-IV Axis-II PDs (SCID-II). As measured by the PDQ-4+, the prevalence rate of PDs in PGs was substantial, with 71% endorsing enough symptoms to meet diagnostic criteria for one or more PDs; 61% of the NPGs also met criteria, the rate of PDs was not different between these groups. The SCID-II interview yielded much lower prevalence rates, with 26% of PGs and 5% of NPGs meeting diagnostic criteria for one or more PDs; these rates were significantly different from one another. Examination of prevalence rates for individual PDs revealed that for both the PDQ-4+ and SCID-II, Borderline PD was significantly more prevalent in PGs compared to NPGs; and for the SCID-II alone, Avoidant PD was

more common in PGs compared to NPGs. No other significant differences in rates for individual PDs across the PG and NPG groups emerged.

No. 18D

### **GENDER DIFFERENCES IN PERSONALITY DISORDERS AMONG DEPRESSED OUTPATIENTS AS COMPARED TO THE GENERAL POPULATION**

Cecilia M.t. Gijsbers Van Wijk, Ph.D. *Mentrum Mental Health Institute, Clinic 2nd C. Huygenstraat 37-39, 2nd C. Huygenstraat 37-39, Amsterdam, 1054 AG, The Netherlands*

#### **SUMMARY:**

**Background:** The two times higher prevalence of depression in women is unequivocal and well-documented. In contrast, the gender distribution of personality disorders is an issue of continuing debate, and is thought to differ between clinical samples and the general population. In a study among depressed outpatients, Golomb et al. (1995) found significant gender differences in narcissistic, obsessive-compulsive and antisocial personality disorders, with depressed men having the higher rates.

**Objective:** to compare the nature and extent of gender differences in personality disorders in the general population and in depressed outpatients.

**Patients and method:** using the Questionnaire on Personality Traits (VKP), a translated self-report version of the International Personality Disorder Examination (IPDE), we assessed gender differences in DSM-IV personality disorders in a large sample of depressed outpatients in Amsterdam (N=400). Data were gathered at the start of a randomized controlled trial (RCT) on the efficacy of various treatment modalities for unipolar depression. Male and female rates of personality disorders in our sample of depressed patients were compared with findings from the literature regarding the gender distribution of personality disorders in non-clinical samples.

**Results:** gender differences in personality disorders in the depressed patients sample were limited compared to non-clinical populations, as described in the literature. Depressed male patients showed significantly higher rates of obsessive-compulsive and paranoid personality disorders (Gijsbers van Wijk, 2003), gender differences were absent on all other personality disorders. In the general population, gender differences in Axis II disorders are more extensive and encompass paranoid, schizoid, schizotypal, narcissistic, and obsessive-compulsive disorders (higher in men) as well as borderline personality disorder (higher in women).

**Conclusion:** hypothetical explanations for the differences in gender distribution between clinical and non-clinical samples are given. In addition, the effect of co-morbid personality disorders on the treatment and prognosis of male and female depressed patients is discussed.

No. 18E

### **DRUG TREATMENT OF PERSONALITY DISORDER: A CRITICAL REVIEW**

Theo Ingenhoven, M.D. *Symfora Group, De Zwaluw & De Enk, P.O. Box 3051, 3800 DB Amersfoort, TBD, The Netherlands, Thomas Rinne, Ph.D.*

#### **SUMMARY:**

Since the late seventies, there is remarkable optimism about the efficacy of drug therapy in the treatment of patients with personality disorders. This optimism is based on the reports of spectacular response rates in open label studies, but also from randomized clinical trials. However, many of these trials suffer from serious methodological shortcomings. Results are contradictory and replications of the

results are lacking or have failed. Reviews on the efficacy of pharmacological treatment of personality disorders are somewhat biased by suggesting stable scientific evidence, where in fact such findings are absent. In spite of poor evidence for the efficacy of most drugs the official guidelines mimic these suggestive conclusions and recommendations from these reviews.

The major methodological requirements that have to be fulfilled in clinical trials will be addressed. Further, the evidence from peer reviewed, double blind placebo controlled randomized clinical trials, testing anti-psychotics, anti-depressants, mood stabilizers and remaining drugs on personality disorder core symptoms will be critically discussed. Finally, an evidence based update and revision of the leading treatment algorithm developed by Soloff with new recommendations for the daily practice will be provided.

#### **REFERENCES:**

1. Bagby RM, Ryder AG, Cristi C: Psychosocial and clinical predictors of response to pharmacotherapy for depression. *J Psychiatry Neuroscience* 2002; 27:250-257.
2. S. Kool, R. Schoevers, S. de Maat, H.L. Van, P.J. Molenaar, A. Vink, J. Dekker (2005). Efficacy of pharmacotherapy in depressed patients with and without personality disorders: a systematic review and a meta-analysis. *J. Aff. Disord. In Press.*
3. Petry, N. M. (2004). Pathological Gambling: Etiology, Comorbidity, and Treatment.
4. Golomb M, Fava M, Abraham M et al: Gender differences in personality disorders. *Am J Psychiatry* 1995; 152:579-582.
5. APA Practice Guideline for patients with Borderline Personality Disorder, 2001.

## **SYMPOSIUM 19—TOWARDS A DEVELOPMENTAL TRAUMA DISORDER**

### **EDUCATIONAL OBJECTIVES:**

To present a comprehensive overview of the impact of traumatic experiences during different stages of development on brain function, affect regulation, cognitive processes, interpersonal relationships and identity formation.

No. 19A

### **CHILDHOOD ABUSE, REGIONAL BRAIN DEVELOPMENT, AND PSYCHIATRIC VULNERABILITIES: EVIDENCE FOR SENSITIVE PERIODS**

Martin H. Teicher, M.D. *Harvard Medical School/McLean Hospital, Department of Psychiatry, 115 Mill Street, Belmont, MA, 02478*, Susan L. Andersen, Ph.D., Akemi Tomoda, M.D., Elizabeth Valente, M.A., Ann M. Polcari, Ph.D.

#### **SUMMARY:**

**Background:** Brain development is molded by early experience. Based on differential rates of maturation, brain regions should have their own unique periods of sensitivity to the effects of early experiences such as stress, and there may be specific associated psychiatric vulnerabilities. We sought to test the hypothesis that there are unique sensitive periods in which specific brain regions are most susceptible to the effects of childhood sexual abuse.

**Methods:** Healthy right-handed subjects, 18-22 years of age, were recruited via advertisements. The entry criterion was a history of 3 or more episodes of forced contact childhood sexual abuse (CSA) before their 18th year. A highly select sample was enrolled who were free of extraneous factors that could adversely affect neurocognitive development. The sample consisted of 26 abused females (mean age = 20.0 years) and 17 sociodemographically equivalent female controls with no current or past DSM-IV Axis I disorder or history

of abuse or trauma. High-resolution T1-weighted MRI data set was used for morphometric measures, from a 1.5 T GE magnetic resonance scanner. Midsagittal area of the corpus callosum and volume of the hippocampus and amygdala were ascertained using manual tracing. Gray matter volume of the prefrontal cortex was ascertained using voxel-based morphometry and also by the cortical parcellation and surface analysis program, FreeSurfer. Depression ratings were assessed using the Symptom Checklist 90 (SCL-90).

Results. The hippocampus was most significantly affected when abuse occurred at 3, 4 or 5 years of age ( $p < 0.01, 0.0001, 0.001$ , respectively). In contrast, the corpus callosum was most affected by abuse that occurred at 9-10 years of age while the prefrontal cortex was most affected by abuse that occurred at 14 or 16 years of age. Ratings of depression were maximally increased in young adult subjects who had experienced CSA at 5-7 and 15-17 years of age.

Conclusions. These findings support the hypothesis that there are sensitive periods in which different brain regions may be most susceptible to the effects of abuse. Viewing exposure to childhood traumatic stress through a sensitive period window may facilitate the identification of discrete subgroups with specific neurobiological and clinical consequences, and may lead to the development of refined diagnostic criteria and more targeted interventions.

#### No. 19B **DEVELOPMENTAL TRAUMA DISORDER: EVIDENCE FROM THE ADOLESCENT YEARS**

Marylene Cloitre, Ph.D. *New York University Child Study Center, Psychiatry, 215 Lexington Avenue, 26th Floor, New York, NY, 10016*

##### **SUMMARY:**

The impact of childhood abuse among adolescents is substantially evident, particularly as it influences the developmental tasks of the teen years. Adolescence is a time of increased striving for autonomy, reorganization of identity, heightened awareness of the perception of peers and increased sexual interest and behavior. Adolescents with a history of childhood abuse are compromised in successfully negotiating all these aspects of change and growth. Compared to their peers, both males and females with abuse histories experience poorer self-esteem, greater social isolation and rejection, more violent behaviors (as both victims and perpetrators) and greater engagement in risky behaviors (sex, drugs, reckless driving). Two critical factors which contribute to these difficulties are 1. dysregulated emotional and behavioral response patterns associated with the trauma (over or under-inhibited reactivity), and 2. general negative expectancies that adolescents with childhood trauma hold about themselves and interpersonal and social relationships. The success of these descriptors to classify apparently disparate behaviors of youth with abuse histories will be discussed in the context of constructing a developmental trauma disorder diagnosis and in the formulation of effective interventions.

#### No. 19C **EMPIRICAL FOUNDATIONS FOR A DEVELOPMENTAL TRAUMA DISORDER**

Bessel A. Van Der Kolk, M.D. *Boston University, Department of Psychiatry, 16 Braddock Park, Boston, MA, 02116*

##### **SUMMARY:**

Background: Research has demonstrated that children with multiple exposures to interpersonal trauma, such as abandonment, betrayal, physical or sexual assaults or witnessing domestic violence have consistent and predictable consequences that affect many areas of functioning. Currently, their impairment is captured by multiple, seemingly unrelated "co-morbid" diagnosis.

Method: The Diagnosis Workgroup of the National Child Traumatic Stress Network reviewed extant studies of children and adolescents with multiple exposures to interpersonal trauma.

Results: The workgroup arranged these findings into the following categories: 1) intense affects such as rage, betrayal, fear, resignation, defeat and shame, and 2) efforts to ward off the recurrence of those emotions, including the avoidance of experiences that precipitate them or engaging in behaviors that convey a subjective sense of control in the face of potential threats, 3) behaviorally reenactments and 4) Their physiological dysregulation may lead to multiple somatic problems, 5) long-term emotional dysregulation and precipitous behavior changes, and 6) difficulty restoring homeostasis and returning to baseline.

Conclusions: Complexly traumatized children develop a view of the world that incorporates their betrayal and hurt. They anticipate and expect the trauma to recur and respond with hyperactivity, aggression, defeat or freeze responses to minor stresses.

#### No. 19D **DEVELOPMENTAL TRAUMA DISORDER: A MISSING LINK IN CHILD PSYCHIATRIC NOSOLOGY AND TREATMENT PLANNING**

Julian Ford *University of Connecticut Health Center, Department of Psychiatry, Farmington, CT, 06030*

##### **SUMMARY:**

Traumatized children with severe psychiatric impairment often receive many diagnoses which are highly variable over time and depending upon assessors' access to data and assumptions about the meaning and function of troubled and troublesome behavior. Case examples of children and adolescents treated in residential psychiatric and juvenile justice programs will be presented to illustrate the inadequacy of basing diagnostic formulations and treatment planning and outcomes monitoring on multiple internalizing or externalizing disorders with or without comorbid PTSD, and the clinical utility of a Developmental Trauma Disorder diagnosis for parsimoniously and accurately describing the fundamental symptomatic and functional impairments that, when addressed in treatment planning, increase the likelihood of engagement and adherence to treatment as well as improvements in self-regulation and psychosocial functioning by children with chronic psychiatric morbidity.

#### No. 19E **CHILD TRAUMA HISTORY PROFILE, INTERFERENCE WITH DEVELOPMENTAL COMPETENCIES, AND INFLUENCE ON OTHER MAJOR PSYCHIATRIC DISORDERS IN CHILDREN AND ADOLESCENTS**

Robert S. Pynoos, M.D. *National Center for Child Traumatic Stress, 11150 W. Olympic Boulevard, Los Angeles, CA, 90064*

##### **SUMMARY:**

This presentation will focus on the interface of child and adolescent trauma history profiles, interferences with acquisition of critical developmental competencies, and the course of other major psychiatric disorders that often increase in prevalence during adolescence. Trauma history profiles that include impeded trauma over a significant developmental period or sequential trauma over several developmental periods can lead to significant disturbances in key developmental competencies, for example, on different stages on the acquisition of emotional regulation. Empirical evidence from studies of bipolar disorder, substance abuse, and other disorders that often emerge in adolescence have recently demonstrated the profound influence of different types of childhood trauma on the onset, severity

and course. A trauma history profile can be key to understanding non-shared environmental factors in genetic studies. A consideration of a trauma developmental disorder provides a critical means by which to consider an appropriate algorithm of intervention, including attention to traumatic stress symptoms and habilitation/rehabilitation of developmental competencies. A trauma developmental disorder opens important avenues of new therapeutic consideration without which diagnosis and treatment may be compromised.

#### REFERENCES:

1. Teicher MH, Andersen SL, Polcari A, Anderson CM, Navalta CP, Kim DM: The neurobiological consequences of early stress and childhood maltreatment. *Neurosci Biobehav Rev* 2003; 27:33-44.
2. Silva, R., Cloitre, M., Davis, L., Levitt, J., Gomez, S., Ngai, I., Brown, E. Early intervention for traumatized children. *Psychiatric Services*, 2003, 74, pp 333-344.
3. van der Kolk, BA, Pynoos R, Putnam F, Ford J, Lieberman A, Spinazzola J, Scheeringa M, Cloitre M: Developmental Trauma Disorder: Toward a Rational Diagnosis for Children with complex trauma histories. *Psychiatric Annals* 2005; 35(5) 401-408.
4. Ford JD: Treatment implications of altered neurobiology, affect regulation and information processing following child maltreatment: *Psychiatric Annals* 2005; 35:410-419.
5. Pynoos, RS, Steinberg, AM, and Piacentini, JC: A developmental psychopathology model of childhood traumatic stress and intersection with anxiety disorders. *Biol Psychiatry* 1999; 46:1542-1554.

## SYMPOSIUM 20—BORDERLINE MOTHERS AND INFANT INTERACTIONS: CHAOTIC CONTINGENCY

### EDUCATIONAL OBJECTIVES:

- At the conclusion of this symposium, participants should be able to:
- have a comprehensive perspective on women with borderline personality disorder and their interactions with their very young children;
  - screen for mother-infant situations at risk for interactive distortions and establish specific therapeutic programs for them.

### No. 20A NEUROBIOLOGICAL INSIGHTS INTO THE CONSEQUENCES OF EARLY NURTURING EXPERIENCE

Cort A. Pedersen, M.D. *University of North Carolina, Psychiatry, Dept of Psychiatry CB# 7160, The University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599-7160*

#### SUMMARY:

Over a century of clinical observations and a vast body of primate research has firmly established that the quality and consistency of early nurturing strongly influences the development of social skill, emotional regulation and the capacity to cope with stress in human and nonhuman primates. Analogous relationships between parental care received in infancy and later social behavior, parenting and stress reactivity have been found in recent years in rats thus making examination of the underlying neurobiology of long-term early nurturing effects more feasible. These studies may provide insight into how dysfunctional emotional regulation, parenting and social behavior may be perpetuated from generation to generation. Brief vs. long daily separations of rat pups from their mothers during the first several postnatal weeks respectively decrease or increase their adult stress responses. These long-term effects are the consequences of the contrasting separation experiences respectively increasing and

decreasing the frequency of maternal pup-licking. Indeed, natural variations in the amount of maternal licking received in infancy are inversely related to adult stress reactivity. Furthermore, the amount females are licked by their mothers determines how much they subsequently lick their own pups. Maternal separation and maternal licking experienced during early life also influence play behavior, aggression and sensitivity to hormone stimulation of female sexual behavior during later stages of life. Variations in maternal licking exert these effects by altering the development of a variety of neurochemical systems in offspring. These include key elements of the fear and anxiety (CRF, GABA, norepinephrine) and the social-sexual motivational (oxytocin, estrogen receptor  $\alpha$ ) circuitry in the brain. Evidence is also mounting that psychological stress during pregnancy has deleterious effects on emotional and social development in offspring. Some of these may be indirect consequences of negative effects on the mother's nurturing behavior.

### No. 20B DISTORTION OF BORDERLINE MOTHERS AND INFANT INTERACTION AND EMOTIONAL REGULATION AT THREE MONTHS

Gisèle Apter-Danon, M.D. *Aubier, Erasme Hospital, Univ. Paris 7, 121 bis avenue du Général Leclerc, Bourg-La-Reine, 92340, France*, Marina Gianoli-Valente, M.A., Rozenn Graignic-Philippe, Ph.D., Emmanuel Devouche, Ph.D., Maya Gratier, Ph.D., Annick Le Nestour, M.D.

#### SUMMARY:

Borderline personality disorder (BPD) is a frequent relationship-centered disorder. Because it is most common among women than men, we focus on its impact on motherhood. Infants will therefore be at risk for disturbed relationships and their mothers submitted to the very element they have major difficulty coping with a durable and sustaining relationship. Interactions between borderline mothers and their infants have been little studied until now. Our research will show how these dyads already have specific characteristics when infants are but three months of age. Maternal behavior, in a face-to-face situation is more intrusive and repetitive but with less variation and an smaller overall amount of interaction (all interactive behaviors included). Infants of BPD mothers show more emotional dysregulation than controls, with less coping capacity after a minor stressful situation such as the Still-Face. These results raise questions both regarding origin of dysregulation, and ways of managing it. Has maternal stress already had an influence in utero, and shaped neurobiological infant reaction? Is the early maternal inconsistent nurturing already responsible for hyperreactive response with that specific caregiver? How interventions could help modify the interactive patterns before they are definitely set in will be discussed.

### No. 20C PRACTICAL APPLICATIONS OF TREATING WOMEN IN THE POSTPARTUM PERIOD

Samantha E. Meltzer-Brody *University of North Carolina, Department of Psychiatry, TBD, Chapel Hill, NC, 27599*

#### SUMMARY:

Postpartum psychiatric illness is one of the most common complications of childbirth. Risk factors for postpartum depression include a prior history of mental illness including a history of trauma and PTSD. There is a growing literature that suggests that maternal depression and stress during pregnancy have an adverse impact on both obstetrical outcome and infant development. For this reason, a comprehensive clinical assessment of maternal mental health during both pregnancy and the postpartum period are critically needed.

This talk will discuss common perinatal psychiatric issues in women including depression during pregnancy and the postpartum period as well as comorbid posttraumatic stress disorder (PTSD). Clinical experience from a busy perinatal psychiatry clinic will be discussed including a comprehensive clinical assessment specific to the perinatal period, the impact of trauma on perinatal psychiatric symptoms, and treatment models that work to enhance coping. A review of state of the art assessment and treatment models will be described.

Target Audiences: Psychiatrists, Mental health clinicians working with women and children, Researchers

### No. 20D INTERVENTIONS FOR NEW MOTHERS WITH PTSD AND BPD

Marian I. Butterfield, M.D. *Durham VA Medical Center, Department of Psychiatry, 508 Fulton Street, 116A, Durham, NC, 27705*, Jennifer L. Strauss, Ph.D.

#### SUMMARY:

Intervention programs for new mothers with PTSD and borderline personality disorder (BPD) are needed. Such interventions for new mothers should ideally target the post partum period for several reasons: 1) it is an ideal time to treat women because of potential for motivation to seek services --- it is a "teachable moment", 2) new mothers also want to do "what is best for the baby" 3) new mothers are prone to access infant services during the first few months. This talk will highlight borderline personality disorder and posttraumatic stress disorder (PTSD) in new mothers. The impact of victimization histories and traumatic stress on women as they become mothers will be discussed. Affective dysregulation, hostility and impulsivity are common to both PTSD and BPD, rendering the need for enhanced parenting skills as paramount. The theoretical impact of psychiatric symptoms, neurobiological correlates, and potential on attachment patterns in these disorders will be discussed. Models of intervention in mothers with borderline personality disorder and posttraumatic stress disorder will be highlighted that emphasize provider recognition and early intervention.

#### REFERENCES:

1. Champagne F, Meaney MJ: Like mother, like daughter: evidence for non-genomic transmission of parental behavior and stress responsivity. *Prog Brain Res* 2001; 133:287-302.
2. Apter-Danon G, Rosenblum O : Borderline mothers and infant interactions. *European Psychiatry* 2000; 15: 40.
3. Dennis CL, Stewart DE. Treatment of postpartum depression, part 1: a critical review of biological interventions. *J Clin Psychiatry*.65(9):1242-51, 2004.
4. Butterfield MI, Becker ME, Marx CE. PTSD in women: current concepts and treatment. *Current Psychiatry Reports*. 4(2):474-485, 2002.

## SYMPOSIUM 21—CRIMINALIZATION OF MENTAL ILLNESS: GETTING IN AND OUT IN NEW YORK

### American Association for Social Psychiatry

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium participants will be able to a) describe how an increasing number of people with mental illness are to be found in jails and prisons, b) what is known about how treatment in jails and prisons is related to community placement and outcomes, c) alternatives to incarceration.

### No. 21A

## ONLY SOME PEOPLE WITH MENTAL ILLNESS ARE CRIMINALIZED

Zebulon C. Taintor, M.D. *NYU School of Medicine, Psychiatry, , Orangeburg, NY, 10962*

#### SUMMARY:

While the nation's jail and prison population topped 2.1 million in 2004, New York State was one of six with a declining population (prisons down from about 77,000 to about 65,000; New York City jail population down from about 24,000 to about 14,000). Yet the percentage and often absolute numbers of persons with diagnosed mental illness have increased (to about 20%). There is little evidence to support the notion that people with mental illness are arrested on the basis of their symptoms, as there are no criminal charges related to symptoms. Arrests continue to be made on the basis of breaking the law. Even persons who could be charged with public urination, harassment, or disorderly conduct are often brought to hospital emergency rooms as emotionally disturbed persons. Charges related to substance abuse, such as DWI, criminal possession or sale of controlled substances, are found in about 70 per cent of the prisoners who present for psychiatric treatments, with a wide variety of charges in the remainder. These changes seem to be related to increased effectiveness of police (DNA, digital fingerprint identification, identification and tracking) that have resulted in rational choices of not committing crimes or trying to do so elsewhere.

### No. 21B SUBSTANCE ABUSE, SPIRITUALITY, AND DEVIANT BEHAVIOR

Richard J. Frances, M.D. *New York University Medical School , School of Medicine, Psychiatry, 510 E. 86th Street, 1D, New York, NY, 10028*

#### SUMMARY:

Substance abuse and related diagnoses, such as substance-induced mood disorder constitute major problems in jails and prisons as they are related to the behaviors that lead to arrests and incarceration. Drug problems are particularly prominent in parole violations and other recidivism. Deviant behavior is related to individual and group values, often expressed in diverse ways such as religion, spirituality, gang or cult membership. Drug addiction can be an artificially-induced biological drive and functional magnetic resonance imaging has shown that brain centers involved in addiction, especially craving, can be activated by a variety of stimuli after years of being clean from drugs. Substance abuse has become so prominent an issue in public mental health and treatment that it often is mistakenly regarded as somehow different from mental illness and has spawned separate laws, bureaucracies and treatment systems. Incarceration has many disadvantages, but one prominent advantage is a chance to be free of substance abuse and related stimuli and involved in a structured situation with regular habits. Integrated treatment programs for substance abuse in jails and prisons are an excellent opportunity to build upon abstinence and prepare a prisoner for life in the community.

New biological treatments can be started in prison, such as buprenorphine and acamprosate, especially as illegal substances often continue to be available somewhat in jails and, to a much lesser degree, in prisons. Fights over drugs are frequent causes of disruptions. Random urine testing for drugs of abuse is increasingly used both to measure and limit the problem. New measures of the persistence of craving during abstinence offer guidelines on the recommended duration of biological treatments. Residential substance abuse treatments can be implemented in prisons. These include peer ratings of behavior, group therapy, and peer support. Prisons inevitably are communities in which all can share in the message that one is where

one is as a result of one's behavior. Prisons inevitably create their own cultures; this is best done consciously. Prisoners from different cultures have different understanding of behavioral norms, especially of drug use and dependence, mental illness, and the potential for personal change. They express spiritual needs in various ways. All of these ideas can be elicited and discussed.

Spirituality is increasingly seen as important in contemporary culture and alternative medicine. Its relevance to the search for meaning and significance in life is of prime importance to incarcerated people, specially those who abuse substances. Resistance to use of spirituality often stems from confusion with organized religions and the pressure on mental health professionals to focus on target symptoms and behaviors. Neuroscience is contributing to an understanding of spirituality and the search for meaning, demonstrating that biological elucidation of behavior should not necessarily lead to biological reductionism in treatment. Several studies have shown the importance of incorporating attention to spirituality in substance abuse treatment. Continuity of aftercare for substance abuse for those discharged from prison poses the dilemma of main streaming vs. specialized programs. All should be integrated and consider the effects of incarceration on subsequent behavior.

#### No. 21C MENTAL HEALTH TREATMENT IN NEW YORK STATE PRISONS AND OUTCOME

Abraham L. Halpern, M.D. *DLFAPA, 111, Mamaroneck, NY, 10543-4299*

##### SUMMARY:

Central New York Psychiatric Center, part of NYS Office of Mental Health provides all mental health treatment in NYS prisons. One of its programs is the Community Orientation and Re-entry Program [CORP] at Sing Sing, a 90-day 31-bed forensic psychiatric rehabilitation initiative targeting mental health service consumers approaching release from prison. Inmates across the state, identified as Seriously and Persistently Mentally Ill and returning to the greater New York Metropolitan Area, are transferred to the CORP unit at Sing Sing. Five days a week CORP patients move to a segregated and protected programming area to participate in a variety of modules on such areas as symptom and medication management, substance abuse and relapse prevention, anger management and alternatives to violence, working with Parole and community providers, community resource awareness and community survival skills. Staff prepare a customized and comprehensive after-care plan for each patient, which includes application for all appropriate entitlements, housing assistance, Intensive Case Management or Assertive Clinical Treatment (ACT) team, clinical aftercare, etc. Medicaid and criminal justice data bases provide information regarding mental health service usage and possible criminal activity. After three years the re-arrest rate is 50% of what would have been expected.

#### No. 21D ALTERNATIVES TO INCARCERATION: ASSISTED OUTPATIENT TREATMENT AND DRUG COURTS

Gary R. Collins, M.D. *New York University, Bellevue Hospital, Department of Psychiatry, unknown, New York, NY, 10016*

##### SUMMARY:

In June, 2005 New York State legislature overwhelmingly renewed the "Assisted Outpatient Treatment Program (AOTP)" frequently referred to as "Kendra's Law." Kendra Webdale died after Andrew Goldstein shoved her in front of a subway train. His voluminous mental health record showed numerous treatment contacts and brief courses of treatment, but expensive discontinuity of care without

therapeutic progress. A pilot study at Bellevue hospital demonstrated the importance of good, continuous treatment. The legislation, Mental Hygiene Law 9.60, characterizes the intended population as "mentally ill people who are capable of living in the community with the help of family, friends and mental health professionals, but who, without routine care and treatment, may relapse and become violent or suicidal, or require hospitalization." It requires documentation and a judicial proceeding that sets a term for AOTP. Every patient must have a specific, individual treatment plan and assigned service provider who assumes accountability before the court.

AOTP liaisons with local mental health systems around the state of New York to help these individuals access services necessary to ensure their safety and successful community living. The Office of Mental Health reported the initial results of the first several thousand AOT court mandates and replicated findings of other outpatient commitment programs as measured by reductions in hospitalization frequency and duration. The New York program has also suggested AOTP mandated individuals showed reductions in arrest and incarceration rates and other forensic indicators. However, there are complaints about the amount of paperwork and other administrative steps that must be completed before a AOTP is ordered. There is a need to balance confidentiality with tracking; AOTP patients sometimes are incarcerated without their status being known unless they choose to reveal it. The program probably will continue to expand, especially with those being released from prisons and jails.

Drug and mental health courts have spread from other states into New York. A mental health court in Brooklyn provides alternatives to incarceration for misdemeanor offenses, while another in the Bronx does so for felony charges. The alternatives provide for judicial supervision of mental health treatments with the possibility of incarceration for noncooperation with treatment or dismissal if progress in treatment is reassuring. Results so far have been so positive that New York State is proceeding with training for 66 additional mental health courts. These alternatives to incarceration must be viewed from the perspective of serving that group of relatively nonviolent (even though AOTP has violent behavior as a criterion for acceptance, it also requires feasible placement in the community) offenders who have mental illness and limited survival skills. The number of people who can be diverted remains to be seen, as does the effectiveness of the mental health treatment system in caring for them. Monitoring and evaluation are essential to determine what legal, administrative, and procedural changes would ease the process while preserving both due process and human rights, especially the right to treatment. As the numbers increase, additional resources will be needed. Costs should be monitored to verify cost-benefit and cost-effectiveness.

##### REFERENCES:

1. Teplin LA et al: Psychiatric disorders of youth in juvenile detention. *Arch. Gen Psychiatry* 2002; 59(12):1133-43.
2. Galanter, M: *Spirituality and the Health Mind: Science, Therapy, and the Need for Personal Meaning*. New York, Oxford University Press, 2005.
3. None.
4. This was done to complete the application prior to the close of the graders site. DW.

#### SYMPOSIUM 22—PSYCHOCULTURAL FOUNDATIONS OF POLITICAL TERRORISM APA Council on Global Psychiatry and International Society of Political Psychology

##### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant will have an improved understanding of the complex phenomenon of contempo-



rary terrorism, both its social and psychological roots, with a particular emphasis on Islamist militancy and radicalization within the diaspora.

**No. 22A**  
**COMBATING THE VIRUS OF ISLAMIST MILITANCY: A PUBLIC HEALTH PERSPECTIVE**

Jerrold M. Post, M.D. *George Washington University, Political Psychology Program, 1957 East Street, NW #502 E, Washington, DC, 20052*

**SUMMARY:**

In considering the challenges of countering terrorism, a public health model can be clarifying. Without being captive of the metaphor of an epidemic, it is nevertheless useful to distinguish among the infection agent (the ideology), the vectors (radical imams, radical madrasahs, the 24/7 cable news channels, and the internet) and the population (vulnerable Islamic youth.) Moreover, drawing on the Haddon matrix, it is useful to distinguish among pre-epidemic, epidemic, and post-epidemic. What can be done to counter the extremity of the ideology of Islamist militancy which is the broader social psychological context spawning Islamist terrorism? How can we counter the vectors? And how can we immunize the population, or if not immunize reduce their vulnerability? The paper will systematically review these components of the social psychological epidemic of Islamist militancy.

**No. 22B**  
**TOWARD A SCIENTIFIC REVOLUTION IN THE APPLICATION OF BEHAVIORAL SCIENCES TO THE STUDY OF THE DEEP ROOTS OF TERRORISM**

Jeff Victoroff, M.D. *Univ. of Southern California, Neurology and Psychiatry, Rancho Los Amigos National Rehabilitation Center, 7601 East Imperial Highway, Downey, CA, 90242*

**SUMMARY:**

NATO's Advanced Research Workshop on Social and Psychological Factors in the Genesis of Terrorism was held in Castelvecchio Pascoli, Italy early September of 2005. This meeting assembled 30 of the world's authorities on the deep psychosocial roots of terrorism, including psychologists, psychiatrists, political scientists, social scientists, economists, and policy makers. The explicit goals of the meeting were (1) to examine what we know versus what we think we know; (2) to share data from several exciting new international research projects; (3) to deliberate regarding the best ways to advance the field during its infant development from a hotbed of theoretical speculation to a scientifically-based discipline informed by the testing of falsifiable hypotheses; (4) to deliberate, in so far as the preliminary nature of the understanding of terrorism allows us, regarding the possibility of consensus recommendations for psychologically-informed policies that might reduce the threat of catastrophic attacks. The results of this Workshop will be presented and discussed.

**No. 22C**  
**THE APPEAL OF RADICAL ISLAM FOR YOUNG BRITISH MUSLIMS**

Amy Waldman *New York Times, International News, New York, NY*

**SUMMARY:**

The news that three young British Muslims of Pakistani origin carried out the July 7 bombings in London has prompted renewed interest in the nexus between second-generation Muslim immigrants

in Europe and radical Islam. I will examine some of the factors that appear to propel that nexus, from a sense of injustice at global and local events, to the difficulties children of Muslim immigrants in Britain have faced in assimilating, to the reasons for the spread of a purist and political form of Islam among young British Muslims.

**No. 22D**  
**TERRORISM AND DIASPORAS**

Stevan M. Weine, M.D. *University of Illinois at Chicago, International Center on Responses to Catastrophes, 2216 Lincolnwood Drive, Evanston, IL, 60201*

**SUMMARY:**

Several of those known to have perpetrated terrorist acts in the U.S. and Europe belong to Diaspora communities in Western societies. Some were born in the Diasporas and some were raised there. States are taking an increased interest in Diasporas, but do state actions towards Diasporas decrease or increase the risk of terrorism? State policies should be based upon a better understanding of the link between Diasporas and terrorism. This presentation will review some existing evidence on diasporas and terrorism which comes largely from journalistic sources. What do we know and what do we need to know about the risks for Diasporas to produce terrorists? How can psychiatry inform a social and cultural policy for Diasporas that aims to reduce terrorism?

**No. 22E**  
**RELIGION AND TERRORISM IN U.S. PRISONS: CRUCIBLE FOR COMMITMENT OR CONTAGION?**

Gregory B. Saathoff *University of Virginia, Department of Psychiatric Medicine, Charlottesville, VA, 22908*

**SUMMARY:**

Terrorism's enigmatic dilemmas have required operational changes in both physical and intellectual responses to terrorism. Over the past decade, the U.S. government has begun to identify the potential for prisons to serve as a breeding ground for terrorism. FBI Director Robert Mueller recently stated to the following to the Senate Intelligence Committee: "Prisons continue to be fertile ground for extremists who exploit both a prisoner's conversion to Islam while still in prison, as well as their socio-economic status and placement in the community upon their release."

Although history provides a means to understand the role of prisons as incubators for terrorism, our new landscape of increased incarceration presents challenges to both federal and state facilities. To what extent are guaranteed freedoms of religion exploited by radical religions? With the understanding that promotion of religion within prison can be constructive in promoting health, it is also important to appreciate religious recruitment and indoctrination within prison. This provides a greater knowledge of the nexus between terrorist and criminal organizations.

**No. 22F**  
**MORAL AGENTS, IMMORAL VIOLENCE: MECHANISMS OF MORAL DISENGAGEMENT IN ISLAMIC SUICIDE MISSIONS**

Mohammad Hafez *Univ. of Missouri, Kansas City, Political Science, Kansas City, MO*

**SUMMARY:**

This study investigates how Islamic suicide bombers deactivate self-sanctioning norms against the indiscriminate killing of civilians. It detects five mechanisms of moral disengagement in the statements

of suicide bombers prior to their deadly missions. The most salient justifications for attacking civilians are *moral justification* of the violence, *advantageous comparisons* among violence, *attribution of blame* for the violence, *euphemistic labeling* of suicide bombings, and *dehumanization* of the victims of violence. To study the discursive practices of individual Islamic suicide bombers, I conducted content analysis of their last will and testaments made before their operations. The written and videotaped statements of suicide bombers contain a wealth of information about their personal motivations as well as the religious and nationalist symbols that inspired them. I analyzed over two hundred statements of Palestinian bombers against Israel and Salafi militants in Iraq. To corroborate the statements of militants, I rely on published interviews with their families, friends, and schoolmates, which can be found in news reports. I also rely on statements of their peers in militant groups as well as top leaders and commanders of factions issued in the Arabic press, aired on television, and published in lengthy interviews in their political journals. These sources provide an insider's perspective on how they justify targeting civilians.

#### REFERENCES:

1. Post, JM: "The Terrorists in their Own Words: Interviews with 35 Incarcerated Middle Eastern Terrorists", Post, J., E. Sprinzak and L. Denny, *Terrorism and Political Violence*, Spring, 2003, Vol. 15, #1 pp. 171-184.
2. Victoroff J: The mind of the terrorist: a review and critique of psychological approaches. *The Journal of Conflict Resolution* 2005; 49: 3-42.
3. Newspaper Article - Waldman, A: Seething Unease Shaped British Bombers' Newfound Zeal. *The New York Times* 2005; A1.
4. Weine, SM: Testimony after Catastrophe: Narrating the Traumas of Political Violence. Evanston, IL, Northwestern University Press, 2005.
5. Mencllee, A., Islamic Religious Groups Jockey for Prison Access As Concerns Over Inmate Terrorism Grow. *Congressional Quarterly*, June 25, 2003.
6. Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Review*. [Special Issue on Evil and Violence], 3, 193-209.

## SYMPOSIUM 23—SCIENCE, DIAGNOSES, AND THE CLINICIAN

### World Psychiatric Association

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to evaluate current approaches to clinical problems that require a new understanding of categories and dimensions in DSM

#### No. 23A

### A PROPOSAL TO INCLUDE A DIMENSIONAL COMPONENT IN DSM-V

John E. Helzer, FAHC, *Mtl Hlth Care Serv Patrick 4, Burlington, Vermont, 05401*

#### SUMMARY:

At the conclusion of this presentation the participant will understand differences between categorical and dimensional diagnostic criteria, top-down vs bottom-up development of criteria, the relative advantages and drawbacks of these various approaches and why such distinctions are important to take into consideration in the development of DSM-V. Both clinical and research implications will be discussed.

#### No. 23B

### DUALISM AND THE DSM: EMERGING FROM THE SHADOW OF THE 17TH CENTURY

G. Scott Waterman, M.D. *University of Vermont College of Medicine, Department of Psychiatry, 89 Beaumont Avenue, Given E215, Burlington, VT, 05405*

#### SUMMARY:

The purpose of any diagnostic system is to improve the ability of physicians to care for their patients. Such systems must, therefore, be judged according to the extent to which they fulfill that purpose. One of the ways by which diagnostic systems, nomenclature and categories affect the ability of physicians to care for their patients is by providing the language and theoretical structures used by physicians to conceptualize the diseases with which their patients present. This presentation will discuss those aspects of the DSM diagnostic system, nomenclature and categories that both reflect and foster mind-body dualistic thinking, including:

1. the multiaxial system - specifically, the separation of Axes I and II on the one hand from III on the other, as well as (for different reasons) the separation of Axis I from II;
2. the expression and concept of "general medical conditions" as distinguished from "mental disorders"; and
3. the expression and concept of "psychological factors" as etiological agents in the context of somatoform disorders.

The adverse effects of these features of the DSM system, and of the dualistic thinking they both instantiate and promote, on the clinical practice and teaching of psychiatry will be exposed, and remedies will be proposed.

#### No. 23C

### DSM IN THE 21ST CENTURY AND BEYOND: THE INTERFACE OF GENOMICS AND NEUROSCIENCE WITH OUR DIAGNOSTIC SYSTEM

James J. Hudziak, M.D. *University of Vermont, Department of Psychiatry, Given B229, College of Medicine, Burlington, VT, 05405-0001*

#### SUMMARY:

The benefits to patients, psychiatrists, and psychiatry realized by the implementation of the DSM-III are well documented. Research led to the creation of the DSM-III and allowed psychiatry to leave behind the morass of DSM-II (e.g., the lack of coherent categories, spurious etiopathogenic thinking, and, ultimately, the isolation of psychiatry from the rest of medicine). It has been argued that the advances in the subsequent DSM's have been relatively small when compared to the near paradigm shift that occurred between DSM-II and DSM-III. As the field prepares itself for the creation of DSM-V, experts are asking the question: Should we pursue a major reformation of our diagnostic approach? This presentation will discuss advances in research from genomics, neuroscience, and evidenced-based psychotherapies, and will argue that although we are not ready for a genomically based diagnostic system, we may be at a tipping point that argues for a diagnostic system that is dramatically different than DSM-IV. Points of emphasis will include the comorbidity confound, and the quantitative nature of phenotypic, endophenotypic, and genetic variance in psychopathology. Further, the disconnection between diagnostic approaches used in psychiatric research, (e.g., structured diagnostic interviews, dimensional markers of psychopathology) and expert clinical diagnoses will be presented.

#### No. 23D

### IMPROVING THE VALIDITY OF DSM CATEGORIES

Lee N. Robins, D.Phil. *Washington University, Psychiatry, St. Louis, MO, Lee N. Robins, D.Phil.*

**SUMMARY:**

Revisions of DSM and ICD are now under way, with the hope of improving their validity. This presentation suggests data that could be used to assist in this goal.

The presentation has three objectives:

1) To show that interview protocols used in collecting epidemiologic survey data have created data banks that are well suited to raising questions about the validity of the existing diagnostic nomenclature

2) To show the kinds of changes that appropriate analysis of these data may suggest to improve the validity of the nomenclature.

3) To show how suggested changes that emerge from such analyses should be tested to learn whether they actually improve validity before they are implemented.

Data banks allow exploration of the effects of combining and splitting diagnoses, of omitting criteria or reweighting them, and of choosing altered algorithms with respect to age at onset, number of symptoms, and duration of episodes.

**REFERENCES:**

1. Helzer JE, Clayton PJ, Pambakian R, et al: The Reliability of Psychiatric Diagnosis. *Arch Gen Psychiat* 34:136-141, 1977.
2. Spitzer RL, First MB, Williams JBW, Kessler RC, Gibbon M, Pincus HA, Tucker G: Now is the time to retire the term "organic mental disorders." *Am J Psychiatry* 1992; 149:240-244.
3. 18. Hudziak JJ, Althoff RR, Derks EM, Faraone SV, Boomsma DI, Prevalence and genetic architecture of CBCL-Juvenile Bipolar Disorder. *Biological Psychiatry*, 2005, in press.
4. Journal Article: Robins, L. N. "Using Survey results to Improve the Validity of the Standard Psychiatric Nomenclature. *ArchGen-Psychiat*. 2004;61:1188-1194.

## **SYMPOSIUM 24—THE EFFECTIVE PSYCHOTHERAPIST: THE ROLE OF COMMON AND SPECIFIC FACTORS**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to appreciate that common factors contribute an essential platform and that specific factors/ psychotherapies add effectiveness in many particular disorders; and be able to model how these factors can be utilized to train competent and effective psychotherapists.

**No. 24A**

### **FACTORS COMMON TO ALL EVIDENCE-BASED PSYCHOTHERAPIES**

John Manring *Department of Psychiatry, SUNY Upstate Medical University, 750 E. Adams Street, Syracuse, NY, 13210*, Priyanthy Weerasekera, M.D.

**SUMMARY:**

With the rapidly growing body of literature supporting specific, manual-based psychotherapies for specific psychiatric disorders, it is no longer sufficient to learn a single kind of psychotherapy to treat the variety of disorders seen in practice. Given the number of psychotherapies which have been demonstrated effective in controlled clinical trials, and the limited time available in which to learn them, psychiatrists should be familiar with an equally large body of literature supporting the factors shown to be common to most all psychotherapies. This presentation will familiarize attendees with those common factors and the literature supporting their efficacy. Empathy, the therapeutic alliance, acceptance, collaboration on agreed upon goals, resistance, characteristics of patient and therapist and the degree of the patient's functional impairment account for 30% of the variance in outcomes of psychotherapy. The placebo

effect accounts for another 15% of variance while specific techniques of psychotherapy contribute only 15% of the variance in outcomes of psychotherapy. Fully 40 % of the variance arises in events outside of therapy. We present a brief critique and a summary of the pertinent literature supporting specific therapies for major diagnostic categories. We conclude with a discussion of the issues surrounding methods of teaching and assessing competence in techniques of psychotherapy and their impact on training.

**No. 24B**

### **COGNITIVE BEHAVIORAL THERAPY FOR ANXIETY DISORDERS: COMMON AND SPECIFIC ASPECTS**

Edna B. Foa, Ph.D. *University of Pennsylvania, Department of Psychiatry, 3535 Market Street, Philadelphia, PA, 19104*

**SUMMARY:**

Cognitive Behavior Therapy [CBT] has gained recognition for its clinical efficacy in a wide array of conditions including the anxiety disorders as demonstrated in numerous studies. CBT is an empirically based, time-limited, problem focused, present centered, active, collaborative, rationale-supported therapy. How much of its effectiveness is due to common factors versus specific techniques? This lecture will focus on delineating the general and the specific aspects of different CBT programs, e.g., Exposure Therapy, Stress Inoculation Training, and cognitive therapy, with pathological anxiety. In particular, treatment programs for posttraumatic stress disorder (PTSD), obsessive compulsive disorder (OCD) and social phobia will be discussed. For example, Exposure and Response Prevention is the most effective treatment available for patients with OCD; however, is there a differential response to exposure alone versus response prevention alone versus exposure and response prevention? This presentation will present outcomes data and will be liberally enriched with clinical vignettes.

**No. 24C**

### **INTEGRATING COMMON AND SPECIFIC FACTORS IN PSYCHOTHERAPY TRAINING: MCMASTER AND SYRACUSE MODELS**

Priyanthy Weerasekera, M.D. *McMaster University, Department of Psychiatry, 301 James South, Hamilton, ON, L8P 3B6*, John Manring, M.D.

**SUMMARY:**

The past few decades have witnessed significant advances in psychotherapy research. Common factors such as the therapeutic alliance have been found to predict outcome early in treatment independent of therapy type. Specific evidence-based treatments have also been investigated for many of the psychiatric disorders. Incorporating these findings into curriculum development is essential if we are to train effective, competent psychotherapists and general psychiatrists. This paper will discuss integrating common and specific factors in two psychotherapy training programs: the Syracuse and McMaster programs. The SUNY program emphasizes the importance of teaching the common factors essential to all therapies with later training in specific therapies. Residents first receive a course in the factors common to all psychotherapies, with later courses in psychodynamic, cognitive-behavioral, systems-centered, DBT, IPT, and family therapy. The McMaster program trains residents in specific therapies with attention being given to alliance development in early training. Therapies chosen for training include: client-centered, CBT, psychodynamic, interpersonal, family, couple and group therapies. This paper will discuss how each program differentially addresses the

common factors/specific treatments controversy in the literature, with the ultimate goal of assisting educators in program development.

#### No. 24D INTERPERSONAL THERAPY: COMMON AND SPECIFIC FACTORS

Scott P. Stuart, M.D. *University of Iowa, Department of Psychiatry, Iowa City, IA, 52242*

##### SUMMARY:

Interpersonal Psychotherapy is a manual-guided and structured psychotherapy with specific goals and techniques which are unique to the treatment. Much of its effect, however, may come from the non-specific psychotherapy elements which are utilized heavily in the intervention. The interaction between the formal structure and the flexibility required in individual patient encounters will be discussed. In addition, research which may distinguish the effects of the IPT specific techniques and strategies from that of the non-specific techniques will be discussed.

##### REFERENCES:

1. Manning, J.M., Beitman, B.D. & Dewan, M.J. Evaluating competence in psychotherapy. *Academic Psychiatry* 2003; 27:136-147.
2. Cahill, S. P.\*, & Foa, E. B. (2005). *Anxiety Disorders: Cognitive Behavior Therapy*. In B. J. Sadock & V. A. Sadock (Eds.), *Kaplan & Sadock's Comprehensive Textbook of Psychiatry*—(8<sup>th</sup> edition, pp. 1788-1799). Philadelphia: Lippincott, Williams, & Wilkins.
3. Weerasekera P, Antony M, Bellissimo A, et al: Competency Assessment in the McMaster Psychotherapy Program. *Acad Psy* 2003; 27:166-173 Manning J, Beitman B, Dewan M: Evaluating Competence in Psychotherapy. *Acad Psy* 2003; 27:136-144.
4. Stuart S, Robertson M: *Interpersonal Psychotherapy: A Clinician's Guide*. London, Hodder Press, 2003.

### SYMPOSIUM 25—DEVELOPING STRATEGIES IN PSYCHOTHERAPY RESEARCH

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to identify new strategies for studying the efficacy of psychotherapy, alone or in combination with medication, and evaluate the quality of a randomized trial of psychotherapy.

#### No. 25A ASSESSING THE QUALITY OF RANDOMIZED CONTROLLED TRIALS OF PSYCHOTHERAPY

Andrew J. Gerber, M.D. *New York State Psychiatric Institute, Child and Adolescent Psychiatry, 535 West 110th St., 5i, New York, NY, 10025*, James H. Kocsis, M.D., Jacques Barber, Ph.D., Steven D. Hollon, Ph.D., Barbara L. Milrod, M.D., Steven P. Roose, M.D., Michael E. Thase, M.D.

##### SUMMARY:

In this study, a new rating scale for assessing the quality of randomized controlled trials (RCTs) of psychotherapy was designed and piloted on all existing RCTs of psychodynamic psychotherapy. In recent years there has been a growing movement towards gathering an evidence base for recommended psychotherapies, with a particular focus on RCTs because of their methodological advantages. Most of the psychotherapy RCTs conducted to date have evaluated time-limited, manualized, symptom-focused, and diagnosis-specific treat-

ments, including variants of cognitive behavioral therapy, behavioral therapy, interpersonal therapy, and structured family interventions. Good empirical evidence for other forms of psychotherapy and for treatment of more heterogeneous populations is lacking. This is, in part, because the methodological demands of RCTs are more compatible with shorter and more structured therapies. However, to date, there has been no systematic measure for evaluating the methodological qualities of psychotherapy RCTs or a quantitative quality-based review of any subset of the psychotherapy literature.

The Quality of Psychotherapy RCT measure was developed by a subcommittee of the American Psychiatric Association Council on Research in response to a call for a systematic evaluation of RCTs of psychodynamic psychotherapy. It consists of 25 Likert-scaled items (items 1 through 24 are scored on a scale of 1 through 3, and item 25 is scored from 1 through 7), divided into six areas: subject description, definition and delivery of treatment, outcome measurement, data analysis, treatment assignment, and overall quality. Raters apply each scale to one or more publications in peer-reviewed journals that describe a single outcome study of psychotherapy. The author and the six authors of the scale independently rated 39 RCTs of psychodynamic psychotherapy using this measure. In the first phase of the study, high inter-rater reliability (via intraclass correlations) was demonstrated by having raters score at least five studies in common with one or more other raters. In the second phase, discussions among raters led to a consensus score on every item for each of the 39 studies. These ratings were then used to summarize the state of the psychodynamic psychotherapy RCT literature and to look for associations among various items and between these items and the overall outcome reported by the studies.

Results of the ratings suggest that there is a broad range of quality among psychodynamic psychotherapy RCTs with very few studies being identified as having high quality across the board. Several associations were found among items of the rating scale and between items and outcome scores. These are discussed in connection with potential biases in the outcome literature. Finally, the results are used as a framework to propose a set of standards for future RCTs of psychodynamic psychotherapy. Though formidable, these methodological challenges need to be met for psychodynamic psychotherapy to advance and to continue its potential usefulness to the field of psychiatry. Plans for application of the Quality of Psychotherapy RCT measure to other subsets of the psychotherapy literature are described.

#### No. 25B LONG-TERM OUTCOME IN PSYCHOTHERAPY RESEARCH

James H. Kocsis, M.D. *Cornell University Medical School, Department of Psychiatry, 525 E. 68th St., Box 140, New York, NY, 10021-0012*

##### SUMMARY:

Little is known about the effects of continuing or discontinuing treatment in depressed patients who have responded to psychotherapy. This presentation will address the important question of the ability of psychotherapy to effect lasting change given the high rates of relapse and recurrence of depression.

Several studies have shown that patients treated to remission with CBT are only about half as likely to relapse following the termination of treatment as patients who enter remission during medication treatment. This enduring effect seems to be at least as great as continuing patients on medication. Cognitive therapy appears to have enduring effects regardless of whether it is provided alone or in combination with pharmacotherapy or whether it is added subsequently after response to medication.

We recently conducted a long-term study of a cognitive-behavioral form of psychotherapy developed specifically for chronic depression

(Cognitive Behavioral Analysis System of Psychotherapy [CBASP]; McCullough, 2000) in chronic depression. In a 12-month maintenance study, the recurrence risk was comparable between patients assigned to continue nefazodone treatment and those who had previously received CBASP in the 12-week acute phase but were assigned to the assessment-only condition in the maintenance phase. This suggests that a history of having received CBASP, even in the absence of continuing psychotherapy, afforded protection against recurrence that was comparable to that observed with active antidepressant treatment (which, in turn, proved superior to placebo maintenance therapy).

#### No. 25C

### AN OUTCOME STUDY FOR PSYCHOANALYSIS

Steven P. Roose, M.D. *College of Physicians and Surgeons, Columbia University, Department of Psychiatry, 1051 Riverside Drive, Rm 2211, New York, NY, 10032*, Andrew J. Gerber, M.D., Bret R. Rutherford, M.D.

#### SUMMARY:

A fundamental concept in evidence-based medicine is the need to establish that a therapy is effective. The accepted method of establishing the efficacy and effectiveness of a treatment is the clinical trial. Traditionally, psychoanalysts have been wary of research in psychoanalysis and particularly skeptical of the value of clinical trials. It was believed that the clinical trials methodology used to study pharmacological or brief-term psychotherapy treatments of psychiatric disorders could not be adapted to the study of a psychodynamic treatment especially psychoanalysis. However, there are a number of rigorous and excellent studies of psychodynamic psychotherapy already completed or in progress and it is only psychoanalysis that has not been systematically studied. The Open-Door Review (Fonagy et al., 2001) of the existing attempts to study outcome in psychoanalysis only serves to emphasize the significant methodological problems that have compromised studies of psychoanalysis to date. It is now both possible and compelling to do a clinical trial to establish the effectiveness of psychoanalytic treatment. Such a study must have a trial design of sufficient rigor that its results will be considered valuable by the dominant standard of good clinical research, as represented by major psychiatric journals and the psychiatric community at large.

In this presentation, we will discuss six major areas of methodological challenge in designing a randomized controlled trial of psychoanalysis. They include: (1) patient selection criteria, (2) treatment adherence measures, (3) therapist qualifications, (4) outcome measures, (5) comparison group, and (6) power analysis. On the basis of a review of related research literature and discussion among experts in the field, we will propose solutions to each of these problems. The study itself should consist of a multi-site randomized control trial comparing three groups: psychoanalysis (four times per week for four years), psychodynamic psychotherapy (once or twice a week for one year, with the option for naturalistic follow-up sessions), and cognitive behavioral therapy (once or twice a week for one year, with the option for naturalistic follow-up sessions). For power reasons, the size of each group should be at least 100. The patients will be selected for an initial diagnosis of chronic depression complicated by ongoing difficulties with interpersonal relationships. Audio or videotaping of all sessions will be mandatory and an independently rated reliable adherence measure will be applied to these tapes to verify that psychoanalysis is being conducted. Psychoanalysis will be performed by senior psychoanalysts and will be defined (as operationalized by the adherence measure) according to a specific consensus definition. The primary outcome measure will be a reliable and valid measure of social adjustment, and secondary analyses will be conducted using measures of ego function and object relations. These recommendations will be discussed in terms of their value for the

scientific rigor of the study, the usefulness to the clinical community, and feasibility.

#### No. 25D

### COMPARISON AND COMBINATION OF PSYCHOTHERAPY AND MEDICATION IN OUTCOME TRIALS

Michael E. Thase, M.D. *University of Pittsburgh Medical Center, Department of Psychiatry, 3811 O'Hara Street, Pittsburgh, PA, 152132593*

#### SUMMARY:

Although various historical and philosophical traditions forged the false dichotomy between mind and brain, more recent advances in neurosciences provide compelling integrative models. Within the mood disorders, for example, formerly dichotomous models of differential therapeutics are falling by the wayside in favor of targeted treatment plans that take into account patient preference, evidence of efficacy, and cost-effectiveness. This presentation will review the evidence-based indications for psychotherapy and pharmacotherapy combinations for depressive and bipolar disorders, highlighting examples of additive effects.

#### REFERENCES:

- Jadad, A: Randomised controlled trials. London: BMJ Books, 1998.
- Klein DN et al: Cognitive Behavioral Analysis System of Psychotherapy as a Maintenance Treatment for Chronic Depression. *J. Consult. Clin Psychol.* 2004; 72:631-638.
- References Vaughn, S. C., Marshall, R. D., Mackinnon, R. A., Vaughan, R., Mellman, L., & Roose, S. P. (2000). Can we do psychoanalytic outcome research? A feasibility study. *International Journal of Psychoanalysis*, 81, 513-527.
- Thase ME: Psychopharmacology in conjunction with psychotherapy. In *Handbook of Psychological Change. Psychotherapy Process and Practices for the 21st Century*, edited by Snyder CR, Ingram RE, New York, John Wiley & Sons, Inc., 2000, pp 474-

### SYMPOSIUM 26—TAKING SCIENCE TO POLICY: EFFORTS TO REDUCE HARMS RELATED TO ALCOHOL MISUSE Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to

- 1) identify effective strategies for moving scientific findings into policy
- 2) work with other professionals and policymakers to implement evidence-based practices

#### No. 26A

### THE MAGNITUDE AND PREVENTION OF UNDERAGE DRINKING PROBLEMS

Ralph Hingson *NIAAA/NIH, 5635 Fishers Lane, Rm 2077, Bethesda, MD, 20892*

#### SUMMARY:

In every state in the United States it is illegal to sell alcohol to persons under the age of 21. Yet 2 million persons age 12-20 consume

5 or more drinks on an occasion at least 5 times per month. The National Institute on Alcohol Abuse and Alcoholism defines consumption of 5 or more drinks by men and 4 or more by women over a two hour period as binge drinking. For the average persons binge drinking produces a blood alcohol content of 0.08% or higher, the legal level of intoxication for adults in every state. Among high school students frequent binge drinkers relative to abstainers are more likely to engage in a variety of behaviors that pose risk to the health of themselves and others such as riding with drinking drivers, driving after drinking, never wearing safety belts, carrying guns and other weapons, being injured in fights and suicide attempts, having unplanned and unprotected sex, smoking and using illicit drugs, drinking and taking drugs at school and earning mostly D's and F's in school. Injuries are the leading cause of deaths for persons under 21 and alcohol is the leading contributor. Annually approximately 5,000 persons under age 21 die from alcohol related injuries. Research indicates that greater enforcement of the legal drinking age of 21 and Zero Tolerance laws, passage of primary seat belt laws, increases in alcohol taxes, and wider implementation of alcohol screening and brief counseling programs and comprehensive community interventions can reduce harms to underage drinkers and others.

#### No. 26B

### **PRAGMATIC SCIENCE: THE NEW NIAAA CLINICIANS GUIDE**

Mark L. Willenbring, M.D. *NIAAA/NIH, Div of Treatment and Recovery Research, 5635 Fishers Lane, Room 2047, Bethesda, MD, 20892*

#### **SUMMARY:**

Research practices cannot be applied directly, but must be adapted for clinical practice. First, realities of clinical practice such as time constraints and addressing multiple problems simultaneously require modification of research practices such as use of structured interview questions. Second, adaptation to practice setting (group, solo, institutional) and personal practice style is necessary. Finally, controlled trials involve comparison of outcomes in highly selected groups, whereas clinical practice focuses on application to unique individuals, many of whom have conditions that would exclude them from a research trial. Thus, clinical application of research based practices inevitably involves trade-offs. Achieving the optimal balance between fidelity to research and practical application requires solid grounding in both worlds. In 2005, NIAAA published a new version of its popular Clinicians Guide to addressing heavy drinking. In addition to adding psychiatrists as a target audience, the new Guide greatly simplified screening (one question), added a large section on prescribing medications for alcohol dependence, and provided advice on disease management for patients with ongoing or relapsing alcohol dependence. In this presentation, an overview of the Guide will be presented, along with supporting research and the process of adapting the research base to clinical psychiatric practice. Emphasis will be on how balance was achieved between fidelity to research and adaptation to clinical practices. Other examples will also be given, using case studies to illustrate main points.

#### No. 26C

### **ALCOHOL INTERVENTIONS IN TRAUMA CENTERS REDUCE REINJURY RATES: STATE LAWS AND INSURANCE REGULATIONS PREVENT THEIR IMPLEMENTATION**

Larry Gentilello *UT Southwestern at Dallas, Surgery, 5323 Harry Hines Blvd, Dallas, TX, 75390-9158*

#### **SUMMARY:**

An injury requiring hospitalization creates a crisis that provides a unique opportunity to intervene and to motivate patients to alter their drinking behavior. This makes trauma centers ideal sites to implement an alcohol screening, intervention, and referral program.

We hypothesized that providing brief alcohol interventions as a routine component of trauma care would significantly reduce alcohol consumption, and decrease the rate of trauma recidivism. A prospective, randomized clinical trial was conducted to determine if incorporation of a comprehensive program of screening and intervention in a trauma center reduces future alcohol related injuries and other alcohol related morbidities.

Screening was performed on 2,524 patients over a two-year period, and was positive in 1,153 (46%). A total of 366 patients were randomized to the intervention group, and 396 to the control condition.

Objective follow-up was obtained by searching Harborview Medical Center Emergency Department Records at one-year post discharge to detect return to the ED for treatment of a new injury. A computerized database of all hospital admissions in Washington State was also reviewed up to three years post discharge to detect hospital readmission for treatment of an injury anywhere in the state. Interviews were also conducted at six and twelve months to assess drinking behavior.

There was a 47% reduction in new injuries requiring either treatment in the HMC emergency department or readmission to the HMC trauma service in the intervention group compared to controls (HR 0.53, 95% CI 0.26-1.07,  $p = 0.07$ ).

There was a similar reduction (48%) in inpatient hospital readmissions for trauma in intervention group patients with up to three years follow-up (HR 0.52, 95% CI = 0.21-1.29).

At 12 month follow-up the intervention group decreased their weekly alcohol consumption by 21.8 + 3.7 standard drinks per week, compared to a 6.7 + 5.8 drinks per week decrease in controls ( $p = 0.03$ ).

This study demonstrates that reducing hazardous drinking and trauma recidivism in trauma patients is feasible and effective. Recently, additional studies have determined that brief alcohol interventions in trauma centers and emergency departments are cost-effective, with nearly four dollars in savings in direct medical expenses for every dollar invested.

However, currently in most states, insurance laws and regulations state that if a person is injured while under the influence of alcohol, the insurance company does not have to pay the medical bills for treatment of the injury. Thus, even though surveys reveal that over 80% of trauma surgeons support providing alcohol interventions to their patients, the potential risk of screening on insurance reimbursement prevents them from doing so. Thus, current health care policies provide a strong disincentive to screen, conflict with recommended best practices, and prevent implementation of interventions with proven effectiveness.

#### No. 26D

### **IMPLEMENTING ALCOHOL TREATMENT FOR PEOPLE WITH CO-OCCURRING DISORDERS IN PSYCHIATRIC TREATMENT SETTINGS**

Robert Drake *NH-Dartmouth Psychiatric Research Center, Department of Psychiatry, Lebanon, NH, 03766*, Mary F. Brunette, M.D., Kim T. Mueser, Ph.D., Gregory J. McHugo, Ph.D.

#### **SUMMARY:**

Implementing evidence-based alcohol and drug treatments for people with co-occurring psychiatric disorders in routine mental health settings presents a complex set of tasks. The crux is integrating mental health and substance abuse treatments thoroughly in all programs in a fashion that can be sustained. This paper will present findings from

the National Evidence-based Practices Project on implementation findings in relation to barriers and strategies at the national, state, and local levels.

Findings are taken from a study using mixed qualitative and quantitative methods of implementation of integrated co-occurring disorders treatments in several mental health programs in Indiana, Kansas, and Ohio.

Successful implementation requires involving all major participants (consumers, family members, clinicians, program leaders, and state or county mental health authorities) in the process and attending to the three phases of change: motivating participants for change, enacting changes, and sustaining implementation. The paper addresses organizational and financing issues, leadership, training and supervision, the use of fidelity scales, specialist programs vs. all-staff programs, computerized decision support systems, and outcomes monitoring.

#### No. 26E

### WHAT KIND OF TREATMENT SYSTEM IS NECESSARY TO IMPLEMENT EVIDENCE-BASED PRACTICES?

A. Thomas McLellan, Ph.D. *Treatment Research Institute, 600 Public Ledger Boulevard, Philadelphia, PA, 19104*

#### SUMMARY:

In the past ten years there have been significant advances in the production of effective therapies, medications and interventions for the treatment of alcohol and other addictions. There is also wide agreement that these "evidence based practices" should replace existing treatments. However, there has been little discussion of the ability of the contemporary addiction treatment infrastructure (personnel, reimbursement practices, physical structure, integration with the rest of healthcare systems) and its ability to accommodate these evidence based practices.

The presentation begins with a review of findings from research investigating the personnel, physical structures, training, reimbursement and regulations operating within the contemporary addiction treatment system and uses three case examples of evidence based practices (CBT, naltrexone, case management) describing what will be required to implement these in contemporary specialty care addiction treatment programs.

#### REFERENCES:

1. Hingson, R., Heeren, T., Winter, M., Wechsler, H. Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18-24: changes from 1998 to 2001. *Annual Reviews of Public Health* 2005; 26: 259-79.
2. n/a.
3. Gentilello LM, Rivara FP, Donovan DM, et al: Alcohol Interventions in a Trauma Center as a Means of Reducing the Risk of Injury Recurrence. *Ann Surg* 1999;230:473-483.
4. Torrey WC, Drake RE, Cohen M, Lynde D, Gorman P, Wyzik P: The Challenge of Implementing Integrated Dual Disorders Treatment Services. *Community Mental Health Journal* 2002; 38:507-521.
5. McLellan A. T. and Meyers K. (2004) Contemporary Addiction Treatment: A Review of Systems Problems in the Treatment of Adults and Adolescents with Substance Use Disorders. *Biological Psychiatry*. 28: 345 ' 361.

## SYMPOSIUM 27—NOT JUST DOPAMINE ANY MORE: EMERGING GLUTAMATERGIC THERAPIES FOR SCHIZOPHRENIA

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to understand the role of the glutamate system in the brain,

to recognize symptoms of schizophrenia that reflect glutamatergic dysfunction, and to treat such conditions with best available agents.

#### No. 27A

### ENDOGENOUS MODULATORS OF GLUTAMATERGIC NEUROTRANSMISSION AND THE PATHOPHYSIOLOGY OF SCHIZOPHRENIA

Joseph T. Coyle, Jr. *Belmont, MA, 02478*

#### SUMMARY:

Glutamic acid is the major excitatory neurotransmitter in the brain, involving 40 percent of all synapses. Its excitatory effects are mediated by two ionotropic receptors: the AMPA/kainate receptors and the NMDA receptors. For glutamate to open the cation channel of the NMDA receptor, D-serine or glycine must be bound to a second recognition site on the receptor. The availability of D-serine or glycine in the synapse is regulated by astrocytes. The NMDA receptors, which are recruited when multiple excitatory impulses converge on the neuronal dendrite, play a central role in functional and structural neuroplasticity as well as memory formation. Pharmacologic, post-mortem brain chemistry and genetic studies support the inference that hypofunction of NMDA receptors contribute to the pathophysiology of schizophrenia and result from interference in the positive modulation of a sub-population of NMDA receptors by D-serine. The pharmacologic implications of these findings will be discussed.

#### No. 27B

### AMPA AGONISTS (AMPAKINES) IN SCHIZOPHRENIA

Donald C. Goff *Harvard Medical School, Department of Psychiatry, Boston, MA, 02114*

#### SUMMARY:

Background: AMPA receptor positive modulators (Ampakines) have demonstrated efficacy in several animal models of learning and memory. CX516, a relatively low-potency Ampakine, has been shown to increase the peak and duration of glutamate-induced AMPA receptor-gated inward currents and to increase hippocampal activity *in vivo* during behavioral training in rats. In one preliminary placebo-controlled trial in 19 clozapine-treated schizophrenia patients, CX516 improved measures of attention and memory, which persisted at 2-week follow-up.

Methods: 105 schizophrenia patients treated with a stable dose of clozapine (n= 53), olanzapine (n=39) or risperidone (n=13) were randomly assigned to CX516 900 mg tid or placebo for four weeks. A cognitive battery, including WCST, CVLT, FAS, Degraded Stimulus CPT, Faces and Family Pictures subtests from WMS-III, Letter-Number Sequencing, and Grooved Pegboard was administered at baseline, week 4 and at follow-up at week 8. Clinical ratings including PANSS, SANS, Calgary Depression Rating Scale and Quality of Life Scale were administered at baseline and weeks 2, 4 & 8. Safety assessments including vital signs and the SAFTEE were completed weekly; routine laboratory and EKG were performed at baseline and week 4.

Results: 121 patients were screened, 105 were randomized and 92 completed the four-week trial. Week 8 follow-up data were available on 87 patients. Effects of CX516 on cognitive performance and clinical ratings during the four-week trial and at follow-up will be presented in addition to data on safety and tolerability.

Conclusions: These results represent the first large trial of add-on treatment with a positive AMPA modulator for cognitive deficits in schizophrenia.

No. 27C

**THE PCP MODEL OF SCHIZOPHRENIA: 45 YEARS AND COUNTING**Daniel Javitt, M.D. *Nathan Kline Inst Psych Resch, 140 Old Orangeburg Road, Orangeburg, NY, 10962-1157***SUMMARY:**

Traditional neurochemical models of schizophrenia focus entirely on dopamine. More recent models focus additionally on glutamate and, in particular, on dysfunction of N-methyl-D-aspartate (NMDA)-type glutamate receptors in the pathophysiology of schizophrenia. Agents that block NMDA receptors, such as phencyclidine (PCP) or ketamine, induce psychotic symptoms that resemble those of schizophrenia, including both negative and cognitive symptoms, implicating NMDA dysfunction. Further research is required, however, into whether or not agents that stimulate NMDA receptors can reverse persistent symptoms of schizophrenia. At present, two major approaches are being pursued toward NMDA stimulation: use of direct agonists, and of glycine transport inhibitors. Glycine and D-serine are small amino acids that bind to a modulatory site on the NMDA complex and increase NMDA receptor activity. Several studies with glycine, given at a dose of 60 g/d, showed significant beneficial effects on persistent symptoms of schizophrenia, especially negative symptoms, although a more recent study reported no overall effect, but significant subgroup effects for inpatients and for patients receiving conventional antipsychotic agents. Further, results may have been affected by tolerability of current glycine formulations during long-term treatment. Use of D-serine has been limited until recently by concerns regarding toxicity. In this presentation, new data will be presented regarding long-term tolerability of microencapsulated formulations of glycine designed to decrease GI side effects, along with new animal and human D-serine safety data. Glycine transport inhibitors function by blocking removal of glycine from the synaptic cleft by GLYT1 and other glycine transporters. Sarcosine, a naturally occurring glycine transport inhibitor, has been shown to be successful in small-scale clinical trials. Glycine, D-serine, and glycine transport inhibitors function, in part, by restoring dysregulation of dopaminergic neurotransmission produced by NMDA antagonists, and in part by stimulating neurotransmission at cortical NMDA receptors. Data will be presented from ongoing microdialysis and electrophysiological paradigms demonstrating significant reversal of PCP effects by glycine-site agonists. These findings suggest that agents which stimulate NMDA receptor-mediated neurotransmission may be beneficial in the treatment of schizophrenia.

No. 27D

**NMDA GLYCINE SITE AGONISTS IN THE TREATMENT OF THE SCHIZOPHRENIA PRODOME**Scott W. Woods, M.D. *Yale University, Department of Psychiatry, New Haven, CT, 06519***SUMMARY:**

As schizophrenic illness develops in patients through premorbid, prodromal, and finally psychotic phases, there is presumably a progression of pathophysiologic mechanisms involved in the disease. The hypothesis of pathophysiology progression suggests three corollaries: 1) that pathophysiologic mechanisms operating during the prodromal phase may differ from those present after onset of psychosis, 2) that the theoretically optimal treatment for the prodromal phase may target different mechanisms from treatments for the psychotic phase, and 3) that treatment targeting mechanisms operating during the prodromal phase could prevent progression of illness. Several lines of evidence suggest that treatments increasing function at the glycine site of the NMDA receptor may provide an effective treatment for schizophrenia during the prodromal phase that could

potentially prevent progression to psychosis as well. Perhaps most importantly, schizophrenia appears to be characterized by reduced complexity of dendritic trees in cortex and reduced numbers of synapses on remaining dendrites. Glycine site agonists promote electrophysiologic long term potentiation, presumably the functional expression of increased anatomical activity-dependent synaptogenesis. Four potentially useful NMDA glycine site agents have been described in the schizophrenia literature so far: 1) glycine itself, a naturally-occurring amino acid full agonist; 2) D-serine, another naturally-occurring amino acid full agonist; 3) D-cycloserine, a synthetic partial agonist, and 4) sarcosine, a naturally-occurring glycine reuptake inhibitor. Of these, only glycine has so far been administered to prodromal patients. Preliminary results from an open label trial in 10 patients will be presented. Plans for placebo-controlled trials of these agents will be discussed.

**REFERENCES:**

1. The GABA-glutamate connection in schizophrenia: which is the proximate cause? *Biochem Pharmacol* 68: 1504-1514, 2004.
2. Goff DC, Leahy L, Berman I, Posever T, Herz L, Leon AC, Johnson SA. A Placebo-Controlled Pilot Study of the Ampakine, CX516, Added to Clozapine in Schizophrenia. *J Clin Psychopharmacology* 2001;21:484-487.
3. Javitt DC: Glutamate as a therapeutic target in psychiatric disorders. *Mol Psychiatry* 2004; 984-7.
4. Woods S, Thomas L, Tully E, et al: Effects of oral glycine in the schizophrenia prodrome (abstract). *Schizophrenia Research* 2004;70:79-80.

**SYMPOSIUM 28—CANMAT GUIDELINES FOR THE MANAGEMENT OF BIPOLAR DISORDER: AN EFFORT TOWARDS INTERNATIONAL CONSENSUS****EDUCATIONAL OBJECTIVES:**

1. Recognize the spectrum of Bipolar Disorders
2. Apply evidence-based knowledge about treatment for acute mania and depression
3. Apply evidence-based treatment selections for maintenance treatment

No. 28A

**FOUNDATIONS OF MANAGEMENT: APPLYING CHRONIC DISEASE MODELS AND PSYCHOSOCIAL INTERVENTIONS TO BIPOLAR DISORDER**Sagar V. Parikh, M.D. *University of Toronto, Psychiatry, Toronto Western Hospital, 399 Bathurst St., 9Main-329, Toronto, ON, M5T 2S8, Canada***SUMMARY:**

Bipolar disorder is a chronic illness, characterized by episodes of relapse/recurrence and periods of remission. Since pharmacotherapy and routine medical management are insufficient, a long-term, multi-disciplinary management plan involving a Chronic Disease Management Model should be applied. The Model, first proposed by Wagner, identifies the essential elements of a health care system for high-quality management of patients. This model, along with other models, has been integrated into a stepped care model specifically for bipolar disorder by Parikh and Kennedy. After initial pharmacotherapy and related clinical management as the first step, care should ideally be provided with a health care team that includes at least one other health professional in addition to the physician, typically a nurse who may provide detailed psychoeducation, additional monitoring, and support. Further interventions involve targeted psychosocial in-



interventions based on the type of episode and the stage of illness (early or late in the disorder). This presentation will summarize recent developments in psychoeducation, cognitive-behavioral therapy, interpersonal therapy, and family therapy in bipolar disorder, and further identify provider-targeted measures to improve treatment, together with broader health services research findings.

#### No. 28B

### CANMAT GUIDELINES FOR ACUTE AND CONTINUATION TREATMENT OF MANIA

Lakshmi N. Yatham, M.D. *University of British Columbia, Department of Psychiatry, Vancouver, BC, V6T 2A1, Canada*

#### SUMMARY:

Mania may present with classical, psychotic or mixed features. Emergency management of agitation precedes other acute therapies, however acute treatment frequently becomes at least a part of maintenance treatment. Hence it is important to consider a continuum of treatment from the outset. Lithium, valproate and several atypical antipsychotics and their combinations are first line treatments for acute mania. However, only some of these have proven efficacy in for maintenance phase and amongst these, lithium appears to have the best data for efficacy. There is some evidence that a combination of an atypical antipsychotic and a mood stabilizer may provide additional benefit in preventing manic episodes. Psychosocial treatments such as psychoeducation and cognitive behaviour therapy when used as adjuncts to pharmacotherapy reduce relapse rates in bipolar patients.

#### No. 28C

### ACUTE MANAGEMENT OF BIPOLAR DEPRESSION

Sidney H. Kennedy, M.D. *UHN, Department of Psychiatry, 200 Elizabeth St, EN8-222, Toronto, ON, M5G 2C4, Canada*

#### SUMMARY:

Depressive symptoms predominate in the lifetime course of Bipolar Disorder (BD). It has been estimated that patients seek treatment 2 to 3 times more often in the depressed state than in mania. In 1997, the CANMAT guideline for the treatment of Bipolar Depression emphasized the role of lithium and anticonvulsant mood stabilizers as first and second line treatments, with add-on antidepressant and antipsychotic medications being reserved for third line. The revised 2005 Guidelines support the role of lithium as an antidepressant, particularly when serum levels exceed 0.8 mEq/l. Lamotrigine has also emerged as a first line monotherapy for bipolar depression as well as several combination approaches including an SSRI with olanzapine or an SSRI/bupropion with divalproex or lithium. Quetiapine has evidence of efficacy in monotherapy and is recommended as second line until further data are available. Third line treatments for non responders involve add-on or switch strategies with other atypical antipsychotics, anticonvulsants and/or venlafaxine add-on. Open studies involving ECT have produced impressive outcomes and ECT should be considered as an early intervention in the presence of psychotic depression, past treatment resistance and significant electrolyte imbalance or emaciation. Concerns about manic switching and continuation of "layered" antidepressant combinations also need to be addressed.

#### No. 28D

### BIPOLAR II DISORDER: EMERGING GUIDELINES FOR TREATMENT

Claire M. O'Donovan, M.B. *Dalhousie University, Mood Disorders Program, Abbie J Lane Mem Bldg, 3rd Floor, 5909 Veterans Memorial Lane, Halifax, NS, B3H 2E2, Canada*

#### SUMMARY:

Bipolar II disorder has been relatively ignored in all recent guidelines pertaining to Bipolar illness yet represents a significant challenge both to those with the illness and to the treating Psychiatrist. It carries a high risk of suicide and a predisposition to rapid cycling. Its hallmark is hypomania which all too often does not command medical attention. This likely explains the delay in accurate diagnosis (an average of 12 years compared to 7 years for Bipolar I and 3.3 years in Unipolar Depression). The Mood Disorder Questionnaire is of moderate benefit in screening for past hypomania but the detection of Bipolar II illness really requires a carefully structured interview and collateral history. It's differential from mood-unstable temperaments and Borderline Personality Disorder in particular, requires close attention to the quality, duration, degree and episodicity of both mood and behaviour, as well as age of onset and family history.

This section of the symposium will focus on the phenomenology of Bipolar II disorder, as well as its management. The role of E.C.T, lithium, anticonvulsants, atypicals and antidepressants both alone and in combination will be reviewed for acute and long-term management of the illness, noting the absence of any specific data on psychotherapeutic interventions. Treatment recommendations, based on evidence and expert opinion from the recent Canadian Guidelines will be presented.

#### No. 28E

### A U.S. AND INTERNATIONAL PERSPECTIVE ON CANMAT GUIDELINES FOR BIPOLAR DISORDER

Joseph R. Calabrese, M.D. *University Hospital Cleveland, Department of Psychiatry, 11400 Euclid Avenue, Suite #200, Cleveland, OH, 44106*

#### SUMMARY:

Bipolar Disorder experts from continents around the world agree that the 2005 CANMAT guidelines represent most comprehensive of such efforts to date. Although there was some dissent from the European group about criteria for rating strength of evidence (particularly the level 2 evidence), in general most experts agree that criteria were applied rigidly and fairly and thus the guidelines represent very well balanced summary of evidence for management of various phases of bipolar disorder. Experts agree that the guidelines include incorporation of chronic disease management model and psychosocial treatments, case studies, bipolar II disorder, management of bipolar disorder in special population, and dealing with uncertain issues as they are represent the major highlights of the CANMAT Guidelines. The US and Australasia Experts felt that more detailed discussion of metabolic syndromes with atypical antipsychotics would have been helpful for clinicians.

#### REFERENCES:

1. Parikh, S.V. and Kennedy, S.H. *Integration of Patient, Provider, and Systems Treatment Approaches in Bipolar Disorder.* In Power M (ed), *Mood Disorders: A Handbook of Science and Practice*, Lonson, Wiley, 2004.
2. Yatham LN, Kennedy S, O'Donovan C, et al. 2005 Canadian Network for Mood and Anxiety Disorders: Guidelines for the management of patients with bipolar disorder: Consensus and controversies. *Bipolar Disorder*, 2005 Jun; 7(3): 5-69.
3. Silverstone P, Silverstone T. A review of acute treatments for bipolar depression. *Int Clin Psychopharmacol* 2004;19:113-124.
4. Yatham LN, Kennedy SH, O'Donovan C et al. Canadian Network for Mood and Anxiety Treatments (CANMAT) guidelines for the management of patients with bipolar disorder. *Bipolar Disorder* 2005; 7 suppl 3:5-69.
5. Yatham LN, Kennedy S, O'Donovan C, et al. 2005 Canadian Network for Mood and Anxiety Disorders: Guidelines for the

management of patients with bipolar disorder: Consensus and controversies. *Bipolar Disorders*, in press.

## **SYMPOSIUM 29—DEMENTIA IN PATIENTS WITH DOWN SYNDROME: RISK FACTORS, BIOMARKERS, DIAGNOSIS, AND TREATMENT**

### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium the participant will be able to recognize the recent advances made in identifying the early signs of dementia in adults and elders with Down Syndrome as well as risk factors, biomarkers, and current treatment strategies.

### **No. 29A RISK FACTORS AND BIOMARKERS FOR DEMENTIA IN ADULTS WITH DOWN SYNDROME**

Nicole Schupf *Columbia University, 630 West 168th Street, New York, NY, 10032*, Deborah Pang, M.P.H., Bindu N. Patel, M.P.H., Warren B. Zigman, Ph.D., Wayne Silverman, Ph.D.

#### **SUMMARY:**

The unique characteristics of adults with Down syndrome (DS) provide a singular opportunity to examine risk factors and biomarkers of Alzheimer's disease (AD). By age 40 virtually all individuals with DS have the neuropathological changes characteristic of AD, and most will develop AD by the end of the seventh decade. Thus, DS may serve as a model for the study of pathogenic factors in AD. While most individuals with DS will develop dementia by the end of their seventh decade, the average age at onset is between 50-55 years, with a range from 38 to 70 years. Hence, there is 10-30 year discordance between the presence of neuropathology and onset of clinical dementia. The early neuropathological manifestations of AD in DS have been attributed to triplication and overexpression of the gene for beta-amyloid precursor protein (APP) located on chromosome 21. However, despite the nearly universal occurrence of AD pathology, there is wide variation in age at onset of dementia, and the factors influencing age at onset of AD are unresolved. It has been proposed that clinical dementia is initiated by the transition from diffuse to neuritic plaques.

This presentation will focus on understanding the role of risk factors and biomarkers for Alzheimer's disease in adults with Down syndrome. Factors that modify the rate of beta-amyloid aggregation and deposition will be reviewed. Factors that increase beta-amyloid burden, such as the APOE E4 allele, amyloid beta peptide AB1-42, gender, oxidative stress, high cholesterol, and estrogen deficiency in women are associated with earlier onset of AD. In contrast, factors leading to reduced APP dose, normal APP gene number, or unusual allelic variability and the APOE E2 allele promote longevity without cognitive decline. These studies point to the importance of amyloid beta protein in the development of AD.

### **No. 29B COGNITIVE ASSESSMENT OF AGING PERSONS WITH DOWN SYNDROME**

Arthur Dalton Ph.D.

#### **SUMMARY:**

Persons with Down syndrome are uniquely vulnerable to Alzheimer disease. Most who come to autopsy after the age of 40 years show widespread distribution of the characteristic lesions of the disease. Clinically, however, many do not show dementia until they reach their early 50s and some may not develop dementia at all.

This situation creates a major challenge for diagnosticians. The identification and selection of outcome measures for developing therapeutic interventions for cognitive loss and dementia in this population is also problematic. This report describes the adaptation of the BRIEF PRAXIS TEST (a non-verbal cognitive test) as well as instruments chosen to assess cognition, behavior, and clinical global function based on previous work in Down syndrome and Alzheimer's disease. Initial experience with these tests is described with participants who were enrolled in a multicenter, randomized, double-blind, placebo-controlled trial of Vitamin E. With the exception of visual memory and orientation measures (which proved too difficult for portions of the cohort), the tests employed proved useful in the assessment of individuals across a range of premorbid levels of intellectual disability.

### **No. 29C TRIALS TO ASSESS TREATMENT STRATEGIES FOR DEMENTIA IN DOWN SYNDROME**

Mary Sano, Ph.D. *Mount Sinai School of Medicine, Psychiatry, 130 West Kingsbridge Rd, Room 1F01C, Bronx, NY, 10468*, Paul Aisen, M.D., Arthur Dalton, Ph.D.

#### **SUMMARY:**

Older individuals with Down syndrome (DS) have an extremely high risk of Alzheimer's disease (AD). Knowledge of the pathophysiology of AD, and the availability of effective therapies for individuals with sporadic AD, present possibilities for treatment of dementia and specifically AD in aging individuals with DS. Little is known about conducting clinical trials for an AD indication among individuals with DS. The Multicenter Trial of Vitamin E in Aging Individuals with Down syndrome, has been launched with grant support from the National Institutes of Health (NIH). It represents one of the few multi-national clinical trials in dementia and perhaps the only trial of individuals with DS. This trial provides a framework for studies of other treatments, specifically aimed at slowing disease progression in this population. This presentation will review possible mechanisms of action for interventions for cognitive deterioration in DS as well as the challenges to clinical trial design in this population. The approaches used in the clinical trial of vitamin E will be assessed as possible pathways to overcome these challenges.

#### **REFERENCES:**

- Schupf, N. Genetic and host factors for dementia in Down syndrome. *Brit J Psychiat* 2002; 180:405-410.
- Sano MC, Aisen PS, Dalton AJ et al Assessment of aging individuals with Down syndrome in clinical trials: Results of baseline measures. *J Policy and Practice in Developmental Disabilities* 2005; 2: xxx.
- Aisen PS, Dalton A, Sano M, Lott IT, Andrews HF, Tsai W-Y and the International Down.

## **SYMPOSIUM 30—GERIATRIC PSYCHIATRY: NEW IDEAS AND NEW PRACTICES FOR THE 21ST CENTURY**

### **EDUCATIONAL OBJECTIVES:**

Explain specific ways that genotyping will be used in geriatric psychopharmacology practice.

Describe brain stimulation technologies (e.g., rTMS, VNS) that will come into clinical practice, and explain how they will fit into the treatment algorithm in geriatrics.

List and describe new psychotropic and neuroprotective medications for geriatric patients.

Explain how selected new technologies (e.g., digitized personal medical record) will come into use and describe how they will affect patient care.

**No. 30A  
PHARMACOGENOMICS IN CLINICAL PRACTICE  
AND RESEARCH**

Larry Ereshefsky, Pharm.D. *California Clinical Trials and Dept Pharmacol. University of Texas Health Science Center, 1509 Wilson Terrace, Los Angeles, CA, 91206*, Stanford Jhee, Pharm.D.

**SUMMARY:**

The FDA in recent Guidances and a White Paper has proposed strategies for translating advances in the basic sciences into novel therapeutic interventions. Strategies include the use of biomarkers and surrogate markers in evaluating drug effects, predicting drug metabolism issues, and in the early demonstration of proof of principle and proof of concept designs in Phase I studies. CYPs as a biomarker for metabolism and other genetic markers predictive of drug response or adverse effect can improve efficacy while reducing risk. Illustrative CSF strategies to evaluate novel compounds for schizophrenia and for Alzheimer's Disease, i.e., glycine and disease modifying strategies, will be discussed.

**No. 30B  
THE FUTURE OF MAGNETIC AND ELECTRICAL  
STIMULATION THERAPIES IN GERIATRICS**

Sarah H. Lisanby, M.D. *Columbia University, Division of Brain Stimulation and Neuromodulation, 1051 Riverside Drive, Unit 126, New York, NY, 10032-2695*

**SUMMARY:**

Recent developments in brain stimulation and neuromodulation techniques offer promise for the study and treatment of psychiatric disorders in the geriatric population. These techniques include repetitive transcranial magnetic stimulation (rTMS), magnetic seizure therapy (MST), vagus nerve stimulation (VNS), and new modifications of electroconvulsive therapy (ECT). rTMS has shown promise in the treatment of moderately medication resistant major depression and schizophrenia. A small number of studies have focused on issues specific to the elderly population, such as post-stroke depression and depression comorbid with Parkinson's disease. More work will be needed to determine its efficacy and optimal dosing strategies for the elderly, where issues of atrophy and other changes in neuronal excitability may play a role. Studies suggest that rTMS can exert frequency-dependent plastic changes in neuronal functioning. Capitalizing upon this effect, recent work in neurorehabilitation has attracted a great deal of excitement regarding a potential role for rTMS in post-stroke recovery. Coupling the superior antidepressant efficacy of seizures with the greater focality of magnetic fields, MST has the potential of reducing the cognitive side effects of ECT. This would be a great advantage for elderly patients with comorbid dementia who are suffering from medication resistant depression in the context of unipolar or bipolar disorders. VNS was approved for the long-term adjunctive management of chronic medication resistant depression. Its tolerability is excellent, but its efficacy in the elderly will need to be specifically examined. These approaches offer hope for the future, and also represent areas where focused research is needed to answer questions regarding the ultimate clinical utility of these approaches for the elderly population.

**No. 30C  
NEW PHARMACEUTICALS**

Sandra A. Jacobson, M.D. *Brown Medical School, Psychiatry and Human Behavior, Miriam Hospital, 164 Summit Ave., Fain Suite 2B, Providence, RI, 02906*

**SUMMARY:**

This talk will provide an overview of drugs currently in the pipeline that will likely impact the practice of geriatric psychopharmacology over the next decade and beyond. The emphasis will be on putative mechanisms of action of antidepressant, antipsychotic, and anti-dementia drugs currently under investigation. Included in the discussion will be antigluco-corticoids, AMPA/kine receptor potentiators, secretase inhibitors, and humanized monoclonal antibodies to beta amyloid. In addition, the rationale for investigation of currently marketed drugs for new indications (e.g., aripiprazole and memantine) will be discussed. For those interested in using information on new drug trials in their own practices (e.g., for patient referrals), the mechanism for accessing these data electronically through the NIMH website will be described.

**No. 30D  
BEST NEW TECHNOLOGIES FOR IMPROVED  
PATIENT CARE**

Myron L. Pulier, M.D. *University of Medicine & Dentistry New Jersey-NJ Medical School, Psychiatry, 800 W END AVE, 13E, NEW YORK, NY, 10025-5467*

**SUMMARY:**

Integrating new technologies into a psychogeriatric practice over the next 2-3 years will lay the foundation for profound improvements in how care is delivered. In 5 years teamwork in practices that incorporated advanced technologies will enable clear and rational definition of collaborative roles for each clinical discipline, for patients and for carers. Now is the time for practitioners to acquire skills to assess and select relevant software and hardware, to prepare their workflow patterns and to anticipate the costs of tooling up for the rapidly approaching future. Scenes will be described for the 3, 5, and 10 year marks.

**REFERENCES:**

1. Biomarkers Definitions Working Group, "Biomarkers and Surrogate Endpoints: Preferred Definitions and Conceptual Framework," *Clinical Pharm. & Therapeutics* 2001;69. Also see FDA Guidance for Industry: Pharmacogenomics submissions <http://www.fda.gov/c>.
2. Lisanby, S.H. (Volume Editor). *Brain Stimulation in Psychiatric Treatment*. American Psychiatric Publishing, Inc. Volume 23 of the Review of Psychiatry Series. Oldham, J.M. (Series Editor). 2004.
3. Palmer AM, Stephenson FA: CNS drug discovery: challenges and solutions. *Drug News Perspect* 2005; 18:51-57.
4. Maheu MM, Pulier ML, Wilhelm FH, McMenamin JP, Brown-Connolly NE: *The Mental Health Professional and the New Technologies: A Handbook for Practice Today*. Mahwah, NJ, Lawrence Erlbaum Associates, Publishers, 2005.

**SYMPOSIUM 31—NANCY C. ANDREASEN,  
M.D.: Festschrift for her 13 years  
as Journal Editor**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium will understand the current state of scientific research in schizophrenia and the influence of Dr. Andreasen and scientific journals on its development.

No. 31A  
**SCIENTIFIC JOURNALS AND THE TRANSMISSION  
 OF KNOWLEDGE TO CLINICIANS**

Floyd E. Bloom *The Scripps Resarch Inst, Dept of Neuropharmacology, na, La Jolla, CA, 92037-1027*

**SUMMARY:**

Nancy Andreasen, Ph.D., M.D., served as Editor-in-Chief of the American Journal of Psychiatry for the past 13 years. This symposium is a celebration of her contributions to Psychiatry and the APA, both as Journal Editor and as one of the nation's most prominent psychiatric researchers. As a festschrift, each participant has agreed to present something of value from their work, as a tribute to Dr. Andreasen's service. Floyd Bloom, M.D., former Editor of Science, will speak about the present and future role of scientific journals in the transmission of knowledge to clinicians and clinical investigators. David Lewis, M.D., will present his work on the molecular biology of schizophrenia. Carol Tamminga, M.D., will speak about clinical trials and how they inform the practice of psychiatry, with particular reference to the treatment of schizophrenia. Robert Michels, M.D., will talk about the psychotherapy research and the future of psychotherapy in psychiatry.

No. 31B  
**INTERACTION BETWEEN GENE EXPRESSION  
 AND SOCIAL BEHAVIOR**

Leon Eisenberg, M.D., *Harvard Medical School, Department of Social Medicine, 641 Huntington Avenue, Boston MA 02115-6019*

**SUMMARY:**

Psychoanalysis circa 1950 was no more the royal road to salvation than the human genome project is circa 2006. Each has something important to tell us about the forces that generate and maintain disease or allow the restoration of health. After all, social experience alters gene expression just as gene expression alters social behavior. The challenge is the integration of the two: Can we invent paradigms that will give new meanings to an old term, "psychogenetic"? For that, we will need to provide an education for our successors that will bridge disciplines between the brain, behavioral, and clinical sciences.

No. 31C  
**BRAIN IMAGING AND THE HUMAN BRAIN AT  
 WORK**

Marcus Raichle, M.D., *Washington University School of Medicine, East Building, Room 2116, 4525 Scott Avenue, St. Louis, Missouri 63110*

**SUMMARY:**

With the development of PET and MRI came the opportunity to not only look noninvasively at the anatomy of organs within the living human but also to evaluate their function. The subject matter of these developments has been generally well received by the scientific community and the general public. This relates not only to the scientific importance of the work itself but also to the fact that the subject matter of cognitive neuroscience touches on subjects of importance to everyone (e.g., normal as well as disordered memory, attention, language, motivation, emotion, decision making, and even consciousness). In addition, the imaging data produced by cognitive neuroscientists are often quite intriguing; observing the brain of another human at work seems to fascinate scientists and nonscientists alike. The task of functional brain imaging becomes clear: identify multiple regions and their temporal relationships associated with the performance of a well designed task. The brain instantiation of the

task will emerge from an understanding of the elementary operations performed within such a network. We have the prospect of progress in one of the last great frontiers of science, understanding the human brain and, in the final analysis, ourselves.

No. 31D  
**HISTORY OF EPISODIC MEMORY**

Endel Tulving, Ph.D., *Roman Research Institute, Baycrest Centre, 45 Baby Point Crescent, Toronto, Ontario, M6S 2B7, Canada*

**SUMMARY:**

With one singular exception, time's arrow is straight. Unidirectionality of time is one of nature's most fundamental laws. Galaxies and stars are born and they die, living creatures are young before they grow old, causes always precede effects, there is no return to yesterday, and so on and on. The singular exception is provided by the human ability to remember past happenings. When one thinks today about what one did yesterday, time's arrow is bent into a loop. The rememberer has mentally traveled back into her past and thus violated the law of the irreversibility of the flow of time. She has not accomplished the feat in physical reality, of course, but rather in the reality of the mind, which, as everyone knows, is at least as important for human beings as is the physical reality. Episodic memory is a neurocognitive (brain/mind) system, uniquely different from other memory systems, that enables human beings to remember past experiences. The notion of episodic memory was first proposed some 30 years ago. At that time it was defined in terms of materials and tasks. It was subsequently refined and elaborated in terms of ideas such as self, subjective time, and autothetic consciousness. This talk provides a brief history of the concept of episodic memory, describes how it has changed (indeed greatly changed) since its inception, considers criticisms of it, and then discusses supporting evidence provided by (a) neuropsychological studies of patterns of memory impairment caused by brain damage, and (b) functional neuroimaging studies of patterns of brain activity of normal subjects engaged in various memory tasks.

**REFERENCES:**

1. Bloom, FE: Presidential address. Science as a way of life: perplexities of a physician-scientist. *Science*. 2003 Jun 13;300(5626):1680-5.
2. Eisenberg L. Social psychiatry and the human genome: contextualising heritability.[see comment]. *British Journal of Psychiatry*. 184:101-3, 2004 Feb.
3. Raichle ME. Functional brain imaging and human brain function. *Journal of Neuroscience*. 23(10):3959-62, 2003.
4. Tulving E. Episodic memory: from mind to brain. *Annual Review of Psychology*. 53:1-25, 2002.

**SYMPOSIUM 32—A SPANISH LANGUAGE  
 UPDATE ON THE ASSESSMENT AND  
 MANAGEMENT OF DEPRESSION  
 American Society of Hispanic Psychiatry**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the Spanish speaking participant should be able to identify the latest trends in the assessment and treatment of depressive disorders.

No. 32A  
**UPDATE ON THE NEUROBIOLOGY OF  
 DEPRESSION**

Pedro L. Delgado, M.D. *University of Texas Health Sciences Center San Antonio, Department of Psychiatry, 7703 Floyd Curl Drive, San Antonio, TX, 78229-3900*

**SUMMARY:**

This presentation will 1. Review the course of illness of depressed patients, 2. Discuss the interaction between genetic and environmental factors, 3. Present data on the correlation between depression and acute and chronic neuroanatomic changes, 4. Discuss evolving theories in preventing/reversing brain changes, 5. Discuss the relevance to treatment guidelines.

**No. 32B  
SUICIDE**

Maria A. Oquendo, M.D. *New York State Psychiatric Institute, Department of Neuroscience, 1051 Riverside Drive, Box 42, New York, NY, 10032*

**SUMMARY:**

On a global scale, suicide accounts for one million deaths resulting from about ten million suicide attempts. Suicidal behavior is almost invariably associated with psychiatric illness and 90% of all suicide victims have at least one diagnosable condition. Suicidal acts can be conceptualized as the result of a stressor or trigger precipitating the suicidal behavior in a vulnerable individual. This stress-diathesis model allows for the various risk factors associated with suicidal behavior to be interpreted in a unified fashion. The factors that affect the diathesis for suicidal acts include genetic, developmental, behavioral, serotonergic and neuroendocrine parameters. The triggers can be psychiatric illness, social or financial difficulties or acute intoxication.

Once the at-risk individual has been identified, several interventions may be useful in preventing suicidal behavior. Pharmacologic (eg. Lithium) and psychotherapeutic (eg. Cognitive or Dialectical Behavioral Therapy) approaches have been investigated for their utility in preventing suicidal acts. These topics will be covered in this lecture.

**No. 32C  
TREATMENT OF DEPRESSION IN PARKINSON'S DISEASE**

Humberto Marin, M.D. *UMDNJ, Robert W. Johnson Medical School, Psychiatry Department, 671 Hoes Lane, Room D-321, Piscataway, NJ, 08855-1392*

**SUMMARY:**

Parkinson's disease (PD) is the second most common neurodegenerative illness in the U.S. after Alzheimer's disease. Two studies, in California and New York, show a higher prevalence/incidence in Hispanic- than Caucasian- and African-Americans. The illness leads to significant functional disability. Depression is the most common psychiatric disturbance found in PD, and a prevalence of approximately 40% is generally accepted. In PD patients, depression is associated with faster progression of physical symptoms, greater decline in cognitive skills, greater decline in ability to care for oneself, and decreased survival. In PD patients, depression is the stronger predictor of quality of life, rather than motor symptoms. Depression in PD is closely associated with poor control of the motor disturbances, especially the "on-off" phenomenon.

In this review we discuss the clinical aspects of depression in PD, the neurocircuitry and transmitters involved, and its treatment. Treatment of depression in PD starts with the optimization of antiparkinsonian therapy. Specific antidepressant measures include pharmacotherapy, especially with SSRIs which seem to induce good response but may occasionally increase motor symptoms, other antidepressants, and medications to correct sleep/anxiety/sexual symptoms, as well as lifestyle interventions such as graded exercise,

and cognitive behavioral therapy, individual or modified to include caregivers.

**No. 32D  
DEPRESSION IN COGNITIVE INTACT AND COGNITIVE IMPAIRED ELDERLY PERSONS**

Jacobo E. Mintzer, M.D. *Medical University of South Carolina, Psychiatry (Alzheimer's Research & Clinical Programs), 5900 Core Road, Suite 203, N. Charleston, SC, 29406-6076*

**SUMMARY:**

**Introduction:** Depressive symptoms are one of the most common and devastating medical problems elderly persons confront. Its presence has been associated with increased morbidity and mortality in this population. The presence of depression in the elderly is not easily detected. Often times its symptoms are confused and diagnosed as cardiovascular or gastrointestinal disorders. Its presence is especially difficult to diagnose when coexisting with Alzheimer's disease or other dementing disorders. Finally although treatment is available the clinical management of these patients is complex and information on how to manage these patients is constantly being updated through experience and research.

**Methods:** Information will be presented based on a current review of the recent literature and clinical treatment guidelines. Clinical examples on how this information can be applied in daily practice will be provided. Assessment tools to measure outcomes at the bedside will be discussed. The special circumstances that apply to the elderly Hispanic patient and their family will be addressed.

**Content:** Issues related to the etiology of depressive symptoms in the cognitive intact and demented elderly person will be discussed. Diagnosis challenges will be carefully addressed. Treatment alternatives will be discussed. Finally ethnic and cultural issues will be discussed as they relate to the perception of depression in different Hispanic cultures.

**REFERENCES:**

1. Kendler KS, Kuhn JW, Vittum J, Prescott, CA, Riley B. (2005), The Interaction of Stressful Life Events and a Serotonin Transporter Polymorphism in the Prediction of Episodes of Major Depression. *Arch Gen Psychiatry* 62:529-535.
2. Oquendo MA; Galfavny H; et al. Prospective study of clinical predictors of suicidal acts after a major depressive episode. *American Journal of Psychiatry*. 2004; 161(8):1433-41.
3. Menza MA, Marin H, Kaufman K, Mark M, Lauritano M. Citalopram treatment of depression in Parkinson's disease: The impact on anxiety, disability, and cognition. *J Neuropsychiatry Clin Neurosci*. 2004 Summer;16(3):315-9.
4. Rosenberg PB, Onylike CU, Katz IR, Porsteinsson AP, Mintzer JE, Schneider LS, Rabins PV, Meinert CL, Martin BK, Lyketsos CB: Clinical application of operationalized criteria for "Depression of Alzheimer's Disease." *Int J Geriatric Psy* 2005;20:119-127.

**SYMPOSIUM 33—RECENT ADVANCES IN CLINICAL CARE AND CLINICAL RESEARCH IN BPD****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: recognize the latest information on the long-term course of BPD, the relationship between BPD and bipolarity, and psychosocial treatments of proven efficacy.

No. 33A

**COURSE OF ACUTE AND TEMPERAMENTAL SYMPTOMS OF BPD OVER TEN YEARS OF PROSPECTIVE FOLLOW-UP**

Mary C. Zanarini, Ed.D. *McLean Hospital, Psychiatry, 115 Mill Street, Belmont, MA, 02478*, Frances R. Frankenburg, M.D., D. Bradford Reich, M.D., Kenneth R. Silk, M.D.

**SUMMARY:**

**Objective:** The purpose of this study was to determine the course (i.e., time-to-remission) of the symptoms of borderline personality disorder (BPD). **Method:** The borderline psychopathology of 362 personality-disordered inpatients was assessed using two semistructured interviews of proven reliability. Two hundred and ninety of these patients met DIB-R and DSM-III-R criteria for BPD and 72 met DSM-III-R criteria for another axis II disorder. Over 90% of surviving patients were reinterviewed blind to all previously collected information at five distinct two-year follow-up waves. **Results:** Among borderline patients, 12 of the 24 symptoms studied showed sharp patterns of decline over time and were reported at 10-year follow-up by less than 15% of the patients who reported them at baseline. The other 12 symptoms showed substantial but less dramatic patterns of decline over the 10-years of prospective follow-up. In terms of specific symptoms, those reflecting areas of impulsivity (e.g., self-mutilation, suicide efforts) and active attempts to manage interpersonal difficulties (e.g., stormy relationships, devaluation/manipulation/sadism) seemed to resolve the most quickly. In contrast, affective symptoms reflecting areas of chronic dysphoria (e.g., anger, loneliness/emptiness) and interpersonal symptoms reflecting abandonment and dependency issues (e.g., intolerance of aloneness, counterdependency problems) seemed to be the most stable. **Conclusions:** BPD seems to be comprised of both acute symptoms, which resolve relatively rapidly, and temperamental symptoms, which resolve at a slower pace.

No. 33B

**RANDOMIZED CONTROLLED TRIAL COMPARING DBT TO APA PRACTICE GUIDELINES FOR BPD: CLINICIAN ADHERENCE**

Paul S. Links, M.D. *University of Toronto, Department of Psychiatry, TBD, Toronto, ON, M5B 1W8*, Shelley McMain, Ph.D., Michele Cook, R.N., Andrea Januszewski, B.S.C., Nathan J. Kolla, M.D.

**SUMMARY:**

**Objective:** Given that affective instability may be related to the risk of suicide in patients with BPD, the purpose of this study was to specify the nature of the affective disturbance that directly and independently increases the risk of suicide. The specific aims of this study were to test the above hypotheses using real-time measures (or Experienced Sampling Methodology) of four aspects of affective instability and to examine their relationship to suicidal ideation in patients with BPD:

1. the magnitude of changes in mood amplitude from high to low;
2. the relationship or variability in one mood measurement to the next as a measure of affective dyscontrol;
3. the average of intensity of daily negative mood ratings and
4. the proportion of mood ratings triggered by environmental triggers.

Next, the predictive significance of these four aspects for the risk of suicide ideation was studied in patients with BPD after controlling for other proposed personal risk factors such as depressive symptoms, hopelessness, impulsivity and recent life events.

**Method:** We chose to utilize an Experience Sampling Methodology (ESM) for this study, in order to capture the characteristics of frequent affective changes in the study participants. This research methodol-

ogy employs signaling devices to sample, at randomized points in time, the subjective experience of persons in their natural environments. Eighty-two subjects meeting criteria for BPD and with a history of previous suicidal behavior were followed prospectively for one month during which time they randomly recorded, 126 times, their current mood states. The primary outcomes were the level of self-reported and observer-reported suicidal ideation.

**Results:** The affective instability item on the SCID-II was endorsed by nearly all of the participants (98.8%); however, with regards to the four aspects of affective instability measured in real time, the subjects showed considerable variability. Of the four aspects of affective instability, the only significant correlation with the DAPP affect lability subscale was with the intensity of negative mood rating ( $r=0.24$ ). Accounting for other personal risk factors for suicide in multiple regression analyses, only the level of intensity of negative mood was found to be significantly related to the patients' self-reported level of suicidal ideation and to their lifetime history of parasuicidal events.

**Conclusions:** Two major new findings arise from the Experience Sampling Methodology utilized in this research. First, the determination of mood variability based on patients' report of affective instability at a single point in time is not a reliable indicator of the daily rating of mood variation. The current findings indicate that the affective instability of patients with borderline personality disorder is characterized by high levels of intense negative mood and these negative mood states, versus other aspects of mood variability, seem to be most closely tied to the occurrence of suicidal ideation and parasuicidal behavior.

No. 33C

**EFFECTIVENESS OF INPATIENT DBT FOR BPD: A CONTROLLED TRIAL AND FOLLOW-UP DATA**

Martin Bohus, M.D. *University of Heidelberg, Department of Psychosomatics and Psychotherapy, J5, Heidelberg, 68159, Germany*

**SUMMARY:**

Effectiveness of inpatient dialectical behavioral therapy for borderline personality disorder: a controlled trial and follow-up data

Dialectical Behavioral Therapy (DBT) was initially developed and evaluated as an outpatient treatment program for chronically suicidal individuals meeting criteria for borderline personality disorder (BPD). Within the last few years, several adaptations to specific settings have been developed. This study aims to evaluate a three-month DBT inpatient treatment program in Germany. Clinical outcomes, including changes on measures of psychopathology and frequency of self-mutilating acts, were assessed for 50 female patients meeting criteria for BPD. Thirty-one patients had participated in a DBT inpatient program, and 19 patients had been placed on a waiting list and received treatment as usual in the community. Post-testing was conducted four months after the initial assessment (i.e. four weeks after discharge for the DBT group). Pre-post-comparison showed significant changes for the DBT group on 10 of 11 psychopathological variables and significant reductions in self-injurious behavior. The waiting list group did not show any significant changes at the four-months point. The DBT group improved significantly more than participants on the waiting list on seven of the nine variables analyzed, including depression, anxiety, interpersonal functioning, social adjustment, global psychopathology and self-mutilation. Analyses based on Jacobson's criteria for clinically relevant change indicated that 42% of those receiving DBT had clinically recovered on a general measure of psychopathology. The data suggest that three months of inpatient DBT treatment is significantly superior to non-specific outpatient treatment. Within a relatively short time frame, improvement was found across a broad range of psychopathological features. Nine and 21 month follow-up data suggest stability of the recovery.

No. 33D  
**EMPIRICAL OBSERVATIONS ON THE  
 RELATIONSHIP BETWEEN BPD AND BIPOLAR  
 DISORDERS**

John G. Gunderson, M.D. *McLean Hospital, Department of Psychiatry, 115 Mill Street, Belmont, MA, 02478-9106*

**SUMMARY:**

**Objective:** To test whether borderline personality disorder (BPD) is part of a bipolar disorder spectrum by examining their rates of co-occurrence, the effects of co-occurrence on course and whether the presence of either disorder confers risk for new onsets of the other.

**Method:** A prospective repeated measures design with reliable independent diagnostic measures and four years of follow-up is employed for samples of 196 patients with BPD and 433 patients with other personality disorders (OPDs).

**Results:** Borderline patients have significantly more co-occurring bipolar disorder (19.4%) than do OPDs, but this co-occurrence does not appear to effect BPD's subsequent course. Though only 8.2% of the BPD patients developed new onsets of bipolar disorder, this was higher than in OPD. OPD patients with co-occurring bipolar disorder showed a trend to have more new onsets of BPD (25%) than did other OPD patients (10%).

**Conclusion:** The association between borderline personality disorder and bipolar disorder is too modest to support a spectrum relationship.

No. 33E  
**RANDOMIZED CONTROLLED TRIAL OF  
 PSYCHODYNAMIC TREATMENTS COMPARED TO  
 DBT FOR BPD**

John F. Clarkin, Ph.D. *Weill College of Medicine at Cornell University, Psychiatry, 21 Bloomingdale Road, White Plains, NY, 10605*, Kenneth N. Levy, Ph.D., Mark F. Lenzenweger, Ph.D.

**SUMMARY:**

Patients with DSM-IV Borderline Personality Disorder (BPD) were randomized to one of three manualized and monitored, active psychosocial treatment conditions. The study was designed to compare two psychodynamic treatments, Transference-Focused Psychotherapy (TFP) and a dynamic supportive treatment, to the standard treatment, Dialectical Behavior Therapy (DBT), delivered in an outpatient setting over one year. The primary outcome measures were duration in treatment and suicidal behavior, and the secondary outcome measures were patient distress (anxiety and depression), impulsivity, and aggression. The variables of interest were measured at four points in time, and were analyzed with hierarchical linear modeling. Results are discussed in terms of the differential outcomes of the three treatments.

**REFERENCES:**

- Zanarini MC, Frankenburg FR, Hennen J, Silk KR: The longitudinal course of borderline psychopathology: six-year prospective follow-up of the phenomenology of borderline personality disorder. *Am J Psychiatry* 2003; 160:274-283.
- Links PS, Heisel MJ, Garland A: Affective instability in personality disorders. *Am J Psychiatry* 2003; 160:394-5.
- Bohus M, Haaf B, Simms T, Schmahl C, Unckel C, Linehan M: Effectiveness of inpatient dialectical behavioral therapy for borderline personality disorder: a controlled trial. *Behavior Research and Therapy* 2004; 42 (5): 487-499.
- Akiskal HS: Demystifying borderline personality: critique of the concept and unorthodox reflections on its natural kinship with the bipolar spectrum. *Acta Psychiatr Scand* 2004; 110(6):401-407.

- Clarkin JF, Yeomans FE, Kernberg OF: *Psychotherapy for borderline personality*. New York, Wiley, 1999.

**TUESDAY, MAY 23, 2006**

**SYMPOSIUM 34—PREDICTORS OF  
 OUTCOME AND TREATMENT RESPONSE  
 IN EATING DISORDERS: RESULTS FROM  
 NEW RESEARCH ON ANOREXIA  
 NERVOSA, BULIMIA NERVOSA, AND  
 BINGE EATING DISORDER**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to demonstrate knowledge of recent findings regarding treatment recommendations and predictors of treatment response in anorexia nervosa (AN), bulimia nervosa and binge-eating disorder (BED).

No. 34A  
**FLUOXETINE VERSUS PLACEBO TO PREVENT  
 RELAPSE IN ANOREXIA NERVOSA**

B. Timothy Walsh, M.D. *NY State Psychiatric Institute-Columbia, Department of Psychiatry, 1051 Riverside Drive, Unit 98, New York, NY, 10032-2603*, Allan S. Kaplan, M.D., Evelyn Attia, M.D., Michael J. Devlin, M.D., Kathleen M. Pike, Ph.D., Marion Olmsted, Ph.D., Jacqueline Carter, Ph.D., Blake Woodside, M.D., Michael Párides, Ph.D.

**SUMMARY:**

Several reports, including a small placebo-controlled trial, suggest that antidepressant medication may reduce the rate of relapse following initial treatment for Anorexia Nervosa. The current study was designed to address this issue.

Ninety-three patients with Anorexia Nervosa at two sites (New York and Toronto) were randomly assigned to receive fluoxetine or placebo following intensive treatment which had restored body weight to 90% of ideal. Patients were treated on an out-patient basis and all received individual cognitive-behavioral therapy as well as medication, which was provided in double-blind fashion. Treatment was provided for 1 year, or until the patient relapsed or voluntarily withdrew.

The primary outcome measure was time to relapse. Preliminary analysis of the recently-completed study indicate that there was no difference between fluoxetine and placebo in time to relapse or in rate of weight loss. These data indicate that fluoxetine does not provide significant benefit to patients with Anorexia Nervosa even after weight restoration.

No. 34B  
**FLUOXETINE VERSUS PLACEBO TO PREVENT  
 RELAPSE IN ANOREXIA NERVOSA: PREDICTORS  
 OF OUTCOME AFTER ONE YEAR OF TREATMENT**

Allan S. Kaplan, M.D. *Toronto General Hospital, Program for Eating Disorders, Department of Psychiatry, 200 Elizabeth Street, Toronto, ON, M5G 2C4, Canada*, B. Timothy Walsh, M.D., Evelyn Attia, M.D., Jacqueline Carter, Ph.D., Michael Devlin, M.D., Marion Olmsted, Ph.D., Kathleen Pike, Ph.D., Blake Woodside, M.D., Michael Párides, Ph.D.

**SUMMARY:**

A recently completed randomized placebo controlled trial of fluoxetine vs placebo in 93 weight restored anorexia nervosa subjects, all

of whom were also receiving CBT, found no evidence that fluoxetine extended the time to relapse over a one year period of treatment. The current analysis examined the impact of factors which might have affected the rate of relapse and the response to medication.

We examined the effect of site (Toronto vs New York), the presence of significant depression (Beck Depression Inventory greater than 17), and subtype (binge-purge vs restrictor) on time to relapse. The time to relapse at the New York site was significantly shorter than that at the Toronto site. Patients with the binge-purge sub-type had a greater rate of relapse than did patients with the restricting subtype. The level of depression had no significant impact on time to relapse. There were no significant interactions of any of these factors with medication.

Several clinical and demographic variables appear to affect the rate of relapse in anorexia nervosa. These findings, and additional data including measures of anxiety, obsessionality, and comorbidity from other methods of analyses will be presented and discussed.

**No. 34C**  
**FLUOXETINE VERSUS PLACEBO TO PREVENT RELAPSE IN ANOREXIA NERVOSA: BODY COMPOSITION PREDICTS OUTCOME AFTER ONE YEAR OF TREATMENT**

Laurel Mayer, M.D. *NY State Psychiatric Institute-Columbia, Department of Psychiatry, 1051 Riverside Drive, Unit 98, New York, NY, 10032*, B. Timothy Walsh, M.D., Deborah Glasofer, M.A., Sarah Etu, B.A., Christina Roberto, B.A., Dymna Gallagher, Ed.D., Jack Wang, M.S., Steven B. Heymsfield, M.D., Richard N. Pierson, Jr., M.D.

**SUMMARY:**

**Objective:** To identify potential biological predictors of relapse in weight-restored women with anorexia nervosa (AN) participating in a one year trial of fluoxetine vs placebo for relapse prevention in women with AN (Relapse Prevention).

**Subjects:** Subjects were 32 women ages 18-45 who were hospitalized on the Eating Disorders Service of the New York State Psychiatric Institute/Columbia University Medical Center for the treatment of anorexia nervosa who were intending to participate in the outpatient Relapse Prevention trial.

**Methods:** Subjects underwent body composition testing shortly after normalizing weight to 90% Ideal Body Weight (1959 Met Life tables), and prior to randomization in the Relapse Prevention study. Prior to testing, patients had been weight stable ( $\pm 2$ kg) for approximately 2-4 weeks and were taking no psychotropic medications. Body composition assessment, performed at the Body Composition Unit of the St. Luke's-Roosevelt Hospital, included anthropometry, total body dual x-ray absorptiometry (DXA, Lunar DPX-L) and total body MRI (for muscle and fat distribution).

**Results:** For the group, mean BMI was 20.4 kg/m<sup>2</sup> and mean percent body fat (by DXA) was 23%. There was no significant correlation between BMI and days to termination in the Relapse Prevention trial (pearson  $r = 0.23$ ,  $p=0.21$ ). However, there was a significant correlation between percent body fat and days to termination in the Relapse Prevention trial (pearson  $r = 0.45$ ,  $p=0.009$ ). Using Morgan-Russell criteria (full, good, fair, poor, other) to classify outcome in the Relapse Prevention trial, there was a significant difference in pre-randomization percent body fat in those subjects who had a full or good outcome ( $26\pm 5\%$ ) compared to those who had fair, poor or other outcome ( $21\pm 5\%$ ) ( $p<0.01$ ). There was no significant difference between pre-randomization BMI in those subjects who had a full or good outcome compared to those with fair, poor or other outcome ( $20.6\pm 0.6$  kg/m<sup>2</sup> vs.  $20.3\pm 0.9$  kg/m<sup>2</sup>).

**Conclusions:** In recently weight-restored women with AN, percent body fat, but not BMI, is associated with outcome.

**No. 34D**  
**EARLY RESPONSE TO MEDICATION AMONG WOMEN WITH BULIMIA NERVOSA**

Robyn Sysko, M.S. *Rutgers University, Psychology Department, 41 C Gordon Road, Eating Disorders Clinic, Piscataway, NJ, 08854*, B. Timothy Walsh, M.D.

**SUMMARY:**

**Objective:** Numerous trials have demonstrated the efficacy of antidepressant medications for the treatment of bulimia nervosa (BN). The current study examined whether early response to medication predicted response to medication at the end of a controlled trial.

**Method:** Data from two previously published studies of desipramine (DMI) were used. Seventy-seven patients with BN were included in the analysis. Receiver operating characteristic (ROC) curves were constructed to examine the relationship between the percentage reduction in symptoms at each week and failure to respond to antidepressant medication at the end of the trial.

**Results:** Eventual non-responders to DMI could be reliably identified in the first two weeks of treatment.

**Discussion:** This study provides preliminary evidence that patients with BN who will not respond to antidepressant medication can be identified in the first two weeks of treatment.

**No. 34E**  
**LONG-TERM OUTCOME OF PSYCHOTHERAPY AND MEDICATION FOR BINGE-EATING DISORDER**

Michael J. Devlin, M.D. *NY State Psychiatric Institute-Columbia, Department of Psychiatry, 1051 Riverside Drive--Unit 116, New York, NY, 10032-2603*, Juli A. Goldfein, Ph.D., Linxu Liu, Ph.D., Eva Petkova, Ph.D., B. Timothy Walsh, M.D.

**SUMMARY:**

Although several studies have investigated short-term responses to psychotherapy and medication treatments for binge-eating disorder, there is as yet little available information regarding the maintenance of treatment effects over time. We recruited 116 obese women and men with binge-eating disorder to participate in a study of the relative and additive effects of fluoxetine and of individual cognitive behavioral therapy (CBT) administered in the context of a standard group behavioral weight control program. Following the initial five month treatment period, we found that individual CBT was associated with greater improvement in binge frequency ( $p<.001$ ), and that patients receiving individual CBT were more likely to attain binge abstinence than those not receiving individual CBT (62% vs. 33%,  $p<.001$ ). Fluoxetine was not associated with greater binge reduction, but was associated with greater reduction in depressive symptoms ( $p<.05$ ). Subjects who were considered responders following the initial treatment phase were invited to participate in monthly maintenance sessions for the following two years, and we attempted to obtain follow-up assessments on all randomized subjects during this period. At 6, 12, 18, and 24 months following the end of the initial treatment phase, we obtained follow-up data on 87, 87, 82, and 84 subjects, respectively, representing 70-75% of the randomized sample at each time point. Overall, 59/87 subjects (67.8%) on whom we obtained follow-up data were abstinent at 6 months, 53/87 (60.9%) at 12 months, 57/82 (69.5%) at 18 months, and 61/84 (72.6%) at 24 months. Additional analyses of follow-up data are in progress. The maintenance of binge reduction during the two years following a multimodal treatment program appears to be moderately good.

**REFERENCES:**

1. Kaye W, Nagata T, Weltzin T, et al. Double-blind placebo-controlled administration of fluoxetine in restricting and restricting-



- purging-type anorexia nervosa. *Biological Psychiatry*, 2001;49:644-652.
- Pike, K.M., Walsh, B.T., Vitousek, K., Wilson, G.T., & Bauer, J. Cognitive behavior therapy in the posthospitalization treatment of anorexia nervosa. *Am J Psychiatry*, 2003; 160: 2046-2049.
  - Mayer L, Walsh BT, Pierson RN, Heymsfield SB, Gallagher D, Wang J, Parides MK, Leibel RL, Warren MP, Killory E, Glasofer D. Body fat redistribution following weight gain in women with anorexia nervosa. *Am J Clin Nutr* 2005; Jun:81(6):1286-91.
  - Fairburn CG, Agras WS, Walsh BT, Wilson GT, Stice E: Early change in treatment predicts outcome in bulimia nervosa. *Am J Psychiatry* 2004; 161:2322-2324.
  - Devlin MJ, Goldfein JA, Petkova E et al.: Cognitive behavioral therapy and fluoxetine as adjuncts to group behavioral therapy for binge eating disorder. *Obes Res*, 2005; 13:1077-1088.

## SYMPOSIUM 35—IMPULSIVITY IN AXIS I AND AXIS II: COMMON SUBSTRATES, DIFFERENT PRESENTATIONS?

### EDUCATIONAL OBJECTIVES:

At the end of the presentation, attenders will have an improved understanding of the neurobiology and treatment of disorders with high levels of impulsivity such as pathological gambling, kleptomania, borderline personality disorder and compulsive shopping.

### No. 35A COMPULSIVE SHOPPING: EPIDEMIOLOGY, COMORBIDITY, AND TREATMENT

Donald W. Black, M.D. *University of Iowa, Psychiatry, University of Iowa Carver College of Medicine, 2-126b MEB/Psychiatry Research, Iowa City, IA, 52242*

#### SUMMARY:

Compulsive shopping disorder has been described by psychiatrists for nearly 100 years, and involves excessive buying behavior that leads to impairment. Impairment can include subjective distress, family or job-related problems, or financial or legal entanglements. The disorder has a prevalence between 2 %-8%, a female preponderance, and has an onset in the late teens or early 20's. Psychiatric comorbidity is the rule, particularly for mood, anxiety, substance use, eating, and personality disorders. The disorder is mainly described in developed countries. Etiology is unclear, but probably involves genetic, family, and social factors. There is no standard treatment. Medication studies have been inconsistent. Cognitive-behavioral models have been developed and show promise. Support groups and financial counseling may be helpful.

### No. 35B PATHOLOGICAL GAMBLING: FROM NEUROBIOLOGY TO EVIDENCE-BASED TREATMENT

Carlos Blanco-Jerez, M.D. *Columbia University, Psychiatry, 1051 Riverside Drive, Unit 69, New York, NY, 10032*

#### SUMMARY:

Pathological gambling is characterized by persistent and recurrent maladaptive gambling behavior. It has an estimated prevalence of 1-2% in the adult population and 5% in adolescents. It is often associated not only with significant financial losses, but also with legal problems, employment difficulties, disrupted interpersonal relationships and medical and psychiatric comorbidity. The annual cost of pathological gambling was recently estimated to be 5 billion

dollars, composed of costs that included job losses, debt and bankruptcy, and incarceration. Over the last decade there have been substantial progress in the behavioral understanding, neurobiology, and treatment of pathological gambling. This presentation will summarize findings from the epidemiology, clinical presentation, and neurobiology of pathological gambling. Data from outcome studies of clinical trials and cognitive-behavioral therapy for pathological gambling will also be presented.

### No. 35C BPD: AFFECTIVE OR IMPULSE CONTROL DISORDER?

S. Charles Schulz, M.D. *University of Minnesota Medical School, Department of Psychiatry, 2450 Riverside Avenue, F282/2A West, Minneapolis, MN, 55454, A. Adityanjee, M.D., Ann Romine, R.N.*

#### SUMMARY:

Pharmacologic Treatments for Impulsivity in Axis II Disorders  
Impulsive and aggressive action patterns are seen by many investigators as either the core of borderline personality disorder (BPD) or one of its major domains. These troublesome symptoms are thought to underpin behaviors such as self-injury, angry outbursts, and even suicide attempts. Furthermore, impulsivity is seen as part of the difficulties BPD patients have in maintaining close relationships. Therefore, treatments that could reduce impulsivity could be very useful in the overall approach to BPD.

In the course of this presentation the issue of impulsivity in BPD will be described and measures of impulsivity will be reviewed. Next, pharmacologic interventions spanning SSRIs, mood stabilizers (lithium and antidepressants), and atypical antipsychotics will be presented with special emphasis on the impacts of each treatment on impulsivity. Finally, current studies with atypical antipsychotics and mood stabilizers will be presented. The new trial of valproate is the first controlled trial of a mood stabilizer administered during a structured psychosocial intervention.

In conclusion, patients with BPD suffer substantially from impulsivity and this single symptom may underpin troublesome behaviors. New medication approaches -including those paired with psychosocial interventions - may play a significant role in treatment of BPD.

### No. 35D KLEPTOMANIA: CLINICAL PRESENTATION, NEUROIMAGING AND TREATMENT

Jon E. Grant, M.D. *Brown University, Psychiatry, 345 Blackstone Blvd., Providence, RI, 02906*

#### SUMMARY:

Kleptomania is a relatively common and often-disabling disorder that often goes unrecognized in clinical practice. Kleptomania consists of a distressing and impairing inability to resist the urges to steal despite awareness of the negative consequences. The data on kleptomania suggest a female preponderance, with an early age at onset and most often a continuous course. The majority of kleptomania subjects have not received treatment for kleptomania despite often seeking help for comorbid psychiatric conditions, most commonly major depressive disorder. Kleptomania has devastating effects on personal and professional lives and serious legal consequences, reflected in high arrest and incarceration rates. It appears that pharmacotherapy may play a vital role in assisting kleptomania patients to resist their urges to steal. Cognitive-behavioral therapy also appears promising. This presentation will review kleptomania's clinical features and recent research findings regarding the neurobiology of kleptomania. In addition, the presentation will emphasize research on effective pharmacologic and psychotherapeutic treat-

ments, and will offer practical advice on how to successfully treat patients with this often difficult-to-treat disorder.

#### REFERENCES:

1. black DW. Compulsive buying. In *Handbook of Impulse Control Disorders*, edited by Hollander E, and Stein D, Wahington, DC, American Psychiatric Press, Inc, in press.
2. Grant JE, Potenza MN: *Pathological Gambling. A Clinical Guide to Treatment*. Washington, DC, American Psychiatric Press, 2004.
3. Schulz SC, Camlin KL: Treatment of Borderline Personality Disorder: Potential of the New Antipsychotic Medications. *J Pract Psychiatry Behav Health* 1999;5:247-255.
4. Aboujaoude E, Gamel N, Koran LM: Overview of Kleptomania and Phenomenological Description of 40 Patients. *Prim Care Companion J Clin Psychiatry* 2004; 6:244-247.

### SYMPOSIUM 36—DIAGNOSTIC CRITERIA IN ALZHEIMER'S DISEASE AND DEMENTIA: RESEARCH CHALLENGES AND IMPLICATIONS FOR DSM-V

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should have a clear understanding of recent progress in key areas of dementia-related research, with particular emphasis on trends in prevalence; approaches to neuropsychological testing; recent advances in genetics and the accelerating search for biomarkers; and applications of neuroimaging to studies of dementia. Symposium presenters will identify research opportunities and future research directions.

#### No. 36A NEUROIMAGING AS A SURROGATE MARKER OF DEMENTIA

Gary W. Small, M.D. *UCLA Neuropsychiatric Institute, Department of Psychiatry, 760 Westwood Plaza, Los Angeles, CA, 90024-8300*

#### SUMMARY:

Neuroimaging is a useful tool that assists clinicians in the diagnosis and differential diagnosis of dementia and related conditions. Structural imaging (e.g., computed tomography [CT], magnetic resonance imaging [MRI]) can identify stroke disease, atrophy, and space-occupying lesions, while functional imaging (e.g., single photon computed tomography [SPECT], positron emission tomography [PET]) can be useful in the diagnosis of neurodegenerative conditions, such as Alzheimer's disease, early in their course. These techniques, along with newer approaches (e.g., functional MRI, diffusion tensor imaging, magnetic resonance spectroscopy), also can serve as surrogate markers to track treatment outcomes both in patients with existing dementia and those with such at-risk conditions as mild cognitive impairment. New PET imaging technologies now provide a cerebral signal for amyloid neuritic plaques and neurofibrillary tangles. This advance offers the promise of accelerating drug and vaccine discovery of interventions designed to prevent or eliminate the accumulation of these pathognomic lesions. Although the current diagnostic criteria mention neuroimaging results as associated laboratory findings, the criteria need updating in light of emerging data of the utility of these technologies. This presentation will provide an update on the current uses of neuroimaging technologies and focus on their inclusion in diagnosis and outcome research.

#### No. 36B NEUROPSYCHOLOGICAL TESTING IN THE DIAGNOSIS OF DEMENTIA

Mary Sano, Ph.D. *Bronx DVA Hospital, One Gustave Levy Place, Bronx, NY, 10468*

#### SUMMARY:

Currently neuropsychological testing can play a major role in the diagnosis of dementia including providing the documentation of cognitive deficits which are the key feature of the diagnosis. The ability to detect and characterize memory deficit is well established and the predicative value of this characterization is well recognized. Current dementia diagnoses pay less attention to other neuropsychological domains and consequently the technology to document these deficits is also less well established. One key domain, identified as important in a growing number of dementias is executive function. This domain has been thought to play a major role on dementia of many etiologies and to be responsible for significant and specific types of functional deficits. Hypotheses about the biology of specific cognitive deficits have grown and some of the pharmacology of memory deficit in dementia is well established. Improved assessment and characterization of other deficits such as executive function, and attention can go hand in hand with better understanding of the pathology (both pharmacological and etiological) of these functions and the contribution they make to an overall dementia picture. Finally new technologies such as functional imaging may lead us to the best understanding of the biological mechanisms that underlie cognitive deficits in dementia.

#### No. 36C THE SEARCH FOR BIOMARKERS AS DIAGNOSTIC AIDES IN ALZHEIMER'S DISEASE

Trey Sunderland, M.D. *National Institute of Mental Health, Geriatric Psychiatry Branch., 9000 Rockville Pike, Bethesda, MD, 20892*

#### SUMMARY:

This presentation describes the progress to date in a study designed to use standard and novel techniques to examine the cognitive testing, neuroimaging, genetic markers and spinal fluid of a special group of normal subjects "at risk" for developing AD. Longitudinal clinical studies of more than 300 subjects have involved baseline neuropsychological testing, MRI scanning, genetic testing for APOE alleles and lumbar punctures for cerebrospinal fluid (CSF). Early results in normal controls "at risk" for developing Alzheimer's disease by virtue of having a positive family history suggest that both neuroimaging and CSF markers may have prognostic significance within those subjects who are APOE  $\epsilon 4$  positive. Longitudinal follow-up is required to test whether these markers are indeed predictive and this project is ongoing. The diagnosis of AD is still based on purely clinical criteria and confirmed pathologically only by biopsy or autopsy. Currently, there is no biomarker to definitively predict who might develop AD in the future, but progress is being made. Future diagnostic criteria may well include one or several of these markers as key variables.

#### No. 36D DIAGNOSTIC CRITERIA IN ALZHEIMER'S DISEASE (AD) AND DEMENTIA: RESEARCH CHALLENGES AND IMPLICATIONS FOR DSM-V

Barry Reisberg, M.D., *New York University School of Medicine, Aging and Dementia Research Center, Silberstein Institute, New York, New York 10016*

## SUMMARY:

Current dementia diagnostic criteria are embodied in the APA's DSM-IV-TR (APA, 2000) and the WHO's ICD-10 (WHO, 1992). The DSM-IV-TR provides a starting point for a current critique, as well as a basis for identifying present research challenges which will inform the DSM-V diagnostic criteria.

A current critique includes the following: (1) The DSM-IV-TR diagnostic criteria for dementia require impairment in memory. However, current consensus criteria for some dementias (e.g., vascular and frontotemporal dementias), de-emphasize memory impairment in presentation. (2) The DSM-IV-TR divides "dementia of the Alzheimer's type" (DAT) into early onset (? age 65) and late onset subtypes. This division is not supported by current research. (3) The DSM-IV-TR, states that a DAT diagnosis "can be made only when other etiologies ? have been ruled out." Current research no longer supports the unique position of AD as a diagnosis of exclusion.

Research directions, which might inform DSM-V criteria include: (1) exploration of community physicians' capacity to assess dementia on simple severity dimension(s); and (2) assessment of cognitive and functional relationships in different dementia subtypes. Such studies should concomitantly employ modern in vivo diagnostic marker modalities (e.g., using neuroimaging and CSF).

## REFERENCES:

1. Small GW. What does imaging add to the management of Alzheimer's disease? *CNS Spectrums* 2004;9 (Suppl. 5):20-23.
2. Buckner R. Memory and executive function in aging and AD: multiple factors that cause decline and reserve factors that compensate. *Neuron*. 2004 30;44(1):195-208.
3. Sunderland T et al. CSF  $\beta$ 1538;-Amyloid1-42 and Tau in Controls at risk for Alzheimer's Disease: The Effect of APOE &  $\beta$ 1541;4. *Biol. Psychiatry* 2004; 56:670-676.
4. Reisberg, B., Burns, A., Brodaty, H., Eastwood, R., Rossor, M., Sartorius, N., Winblad, B. Diagnosis of Alzheimer's disease: Report of an International Psychogeriatric Association Special Meeting Work Group Under the Cosponsorship of Alzheimer's Disease International, the European Federation of Neurological Societies, the World Health Organization, and the World Psychiatric Association. *International Psychogeriatrics*, 1997, 9(Suppl. 1): 11-38

## SYMPOSIUM 37—BULLYING IN THE WORKPLACE: PSYCHIATRIC AND PUBLIC HEALTH PERSPECTIVES

## EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium the participant should be able to: Assess the occurrence of workplace bullying among his/her patients; Identify the workplace bullying as an important psychosocial factor associated with psychiatric conditions; Gain understanding of the nature, related factors and epidemiology of bullying at work; Recognize the medical/psychiatric problems associated with bullying; Advocate for the public health needs of workers subjected to bullying.

## No. 37A

### SETTING THE STAGE: PREVALENCE, ANTECEDENTS, AND EFFECTS OF WORKPLACE BULLYING

Loraleigh Keashly, Ph.D. *Wayne State University, College of Fine, Performing, and Communication Arts, 656 W. Kirby, 3198 Faculty Administration Building, Detroit, MI, 48202*, Joel H. Neuman, Ph.D.

## SUMMARY:

Objective: While much attention has been paid to workplace violence, workplace bullying (persistent aggression) which is predominantly psychological in nature is only recently garnering research attention in North America. The purpose of this review is to lay the groundwork for discussion of treatment and intervention by summarizing the current thinking and research on the antecedents, nature and effects of workplace bullying.

Method: This talks draws on two recent reviews (see below) conducted by the first author, which involved a review of studies (up to 2004) in the PsychInfo database that utilized the keywords of workplace bullying, mobbing, abuse, and harassment. This literature is supplemented by data from two recent workplace survey studies involving the authors: 1) 5 year large scale longitudinal study of workplace stress and aggression in the U.S. Dept. of Veterans Affairs (N=8,596) and 2) statewide labor survey in Fall, 2004 (N=438).

Results: Prevalence of workplace bullying ranges from 10-36% in U.S. based studies and is equally likely to occur at the hands of coworker or boss. Exposure to bullying is linked to poorer mental and physical health, increased stress, decreased job satisfaction and commitment, and decreased organizational productivity. Bullying by bosses intensifies the negative impact on targets. Organizations characterized by high involvement workplace practices report less aggression and bullying overall.

Conclusions: Workplace bullying is clearly a pressing public health issue. While much more needs to be learned, the research to date provides a basis for the discussion and development of relevant intervention and treatment strategies.

## REFERENCES

1. Keashly, L. & Jagatic, K (2003). By any other name: American perspectives on workplace bullying. Chapter in S. Einarsen, H. Hoel, D. Zapf., & C. Cooper. *Bullying and emotional abuse in the workplace: International research and practice perspectives*. London, UK: Taylor Francis
2. Keashly, L & Harvey, S. (2004). Emotional abuse at work. In Spector, P. & Fox, S. (eds). *Counterproductive workplace behavior: An integration of both actor and recipient perspectives on causes and consequences*. Washington, DC: American Psychological Association. chapter 9; 201-236.

## No. 37B

### BULLYING AT WORK: PSYCHIATRIC ISSUES

Renato Gilioli, M.D. *University of Milan/Fondazione IRCCS, Department of Occupational Health, via S. Barnaba 8, Milan, 20122, Italy*, Silvia Punzi, Psy.D., Giuseppe P. Fichera, Psy.D., Paolo Campanini, Psy.D.

## SUMMARY:

Objectives: In 1996 the first Italian medical centre for occupational stress and harassment was set up at the Milan University with a day hospital service.

From 1997 to 2003, 3279 patients have been examined for work-related psychiatric disorders. 58.5% (n=1919) were considered bullying-related.

The aim of the study is to establish the frequency of the different diagnoses as well as the main socio-demographic variables of the victims.

Methods: The sample amounts to 1919 subjects. The clinical records (medical examination, occupational history, psychiatric and psychological interview and tests) were analyzed. Descriptive statistical analysis was carried out.

Results: Since 1997 there was a marked increase in bullying victims. 977 were males (50.9%) and 942 females (49.1%). 43% of the sample is from 45 to 54 years old. 68% of the sample met the criteria

for Adjustment Disorder; 18% met the criteria for mood disorders; 10% had symptoms suggestive of Post-traumatic Stress Disorder, and 4% had other anxiety disorders.

Conclusions: The awareness of bullying at work is increasing and many new cases of bullying-related disorders have been diagnosed. Bullying involves both men and women in the medium-high age ranges and can result in severe psychiatric consequences.

## REFERENCES

1. Cassitto M.G., Fattorini E., Gilioli R., Rengo C., Gonik V. (2003) Raising awareness of Psychological harassment at work. Protecting Workers' Health Series No 4. World Health Organization, Milan/Geneva.
2. Einarsen S., Hoel H., Zapf D. and Cooper C.L. (2003) Bullying and emotional abuse in the workplace. International perspectives in research and practice. Taylor and Francis, London/New York.
3. Gilioli R. et al. (2001a) Un nuovo rischio all'attenzione della Medicina del Lavoro: le molestie morali (mobbing), Documento di Consenso, in La Medicina del Lavoro, Rivista bimestrale di Medicina del Lavoro e Igiene Industriale, vol. 92, n° 1: 61-69.
4. Fox S., Spector P.E. (2005) Counterproductive work behavior. Investigation of actors and targets. A.P.A., Washington DC.

## No. 37C

### WORKPLACE BULLYING, ALCOHOL USE AND ABUSE, AND SERVICE UTILIZATION

Judith A. Richman, Ph.D. *University of IL at Chicago, Department of Psychiatry (M/C 912), 1601 West Taylor Street, room 469, Chicago, IL, 60612*

#### SUMMARY:

Objective: Workplace bullying results in increased alcohol use and abuse (Richman et. al, 1999). An important question is whether substance use is addressed by clinicians seeing patients presenting with bullying experiences (Richman and Rospenda, 2005). This talk addresses this issue.

Method: A longitudinal study of 1500 respondents were surveyed with a questionnaire 5 times between 1996 and 2003. In 2002, a subsample of 21 individuals were interviewed for 1 to 2 hours using a semi-structured instrument and focusing on sexual harassment, workplace bullying, distress, use and abuse of alcohol and other substances, mental health service utilization, focus of treatment and satisfaction with treatment.

Results: Workplace bullying leads to the increased use of alcohol and other substances. Respondents had all sought treatment to deal with these experiences. While service utilization was seen as an aid in dealing with distress, there was little evidence that clinicians focused on the use of alcohol or other substances.

Conclusions: Since workplace bullying often leads to the increased use of alcohol and/or other substances for coping purposes, it is important for mental health providers to address this problem in addition to the distress elicited by the bullying experiences.

#### References

1. Richman JA, Rospenda KM, Nawyn SJ et al.: Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89: 358-363.
2. Richman JA, Rospenda KM: Sexual harassment and alcohol use. *Psychiatric Times* 2005; 22: 48-53.

## No. 37D

### WORKPLACE BULLYING AND EMPLOYEE BENEFITS: ENABLING THE TRAUMATIZED WORKER TO SEEK HELP FOR PSYCHIATRIC ILLNESS

David Yamada, J.D. *Suffolk University, Law School, 120 Tremont Street, Suite 260-E, Boston, MA, 02108-4977*

#### SUMMARY:

Objective: Many targets of severe workplace bullying seek treatment for psychiatric illness. However, their ability to obtain such assistance may depend on their eligibility for various employee benefit programs, including workers' compensation, health insurance coverage, unemployment insurance, and private disability and public Social Security disability plans. This study will examine the employee benefit options available to bullied employees who seek treatment for psychiatric illness.

Method: First, this study will identify psychiatric illnesses commonly experienced by targets of workplace bullying, including clinical depression and Post Traumatic Stress Disorder. Second, it will analyze the employee benefit options available to these employees, including workers' compensation, health insurance, unemployment benefits, and disability payments, as well as the possibility of invoking legal process to obtain these benefits and compensation for emotional distress.

Results: This study will demonstrate that, all too often, employee benefit programs, and employment protections generally, do not provide adequate assistance to severely bullied employees who are suffering from work-related psychiatric illness.

Conclusions: This study will conclude with recommendations for mental health and legal professionals, as well as proposals for potential law reform measures concerning employee benefits.

#### References:

1. Namie, G, Namie, R: *The Bully at Work*, rev. ed. Naperville, Ill., Sourcebooks, 2003.
2. Repa, BK: *Your Rights in the Workplace*, 7<sup>th</sup> ed. Berkeley, Calif, Nolo Press, 2005.
3. Yamada, DC: *Crafting a Legislative Response to Workplace Bullying*. *Employee Rights and Employment Policy J* 2004; 8: 475-521.
4. Yamada, DC: *The Phenomenon of "Workplace Bullying" and the Need for Status-Blind Hostile Work Environment Protections*. *Georgetown Law J* 2000; 88: 475-536.

## No. 37E

### SYNDROME OF MORBIDITY ASSOCIATED WITH SCHOOL BULLYING: IMPLICATIONS FOR ADULTHOOD

Jorge C. Sraabstein, M.D. *Children's National Medical Center, Psychiatry and Behavioral Sciences, 10834 Willow Run Court, Potomac, MD, 20854-2581*

#### SUMMARY:

Objectives: This presentation will describe a syndrome of psychosomatic morbidity experienced by students who are frequently bullies and/or victims of bullying. Its implications on adult's working environment will be discussed

Methods: Analysis, from data, established by a school based, cross-sectional, representative sample of 15686 US students, grade 6 through 10, who completed the 1998 Health Behavior in School-aged Children survey.

Results: Five percent of US middle and high school students are frequently involved in bullying, and suffer, several times a week, from a cluster of at least six psychosomatic symptoms. Students,

who experienced this syndrome, when compared to peers who do not exhibit this morbidity complex, have a significantly higher prevalence of frequent injuries requiring medical care (17% vs. 5.9%). In addition they have a higher frequency of daily tobacco smoking (20.8% vs. 6.3%) and daily alcohol bingeing (8.5% vs. 0.9%, than the rest of the students, of same age.

*Conclusions:* Future longitudinal studies should explore the association of this syndrome with bullying experiences in the adult workplace environment.

#### REFERENCES:

1. Due P, Holstein BE, Lynch J, Diderichsen F, et al. Bullying and symptoms among school-aged children: international comparative cross sectional study in 28 countries. *Eur J Public Health*. 2005; Epub 2005 Mar 8.
2. Nansel TR, Overpeck M, Pilla RS, Ruan WJ, Simons-Morton B, Scheidt P. Bullying behaviors among US youth: prevalence and association with psychosocial adjustment. *JAMA*. 2001; 285(16): 2094-2100.
3. Gerd K. Natvig, Grethe Albreksten, Qvarnstrom F. Psychosomatic symptoms among victims of bullying. *J Health Psychol*. 2001;6:365-377.
4. Keashly L, Jagatic K: By any other name: American perspectives on workplace bullying. In *Bullying and Emotional Abuse in the Workplace: International Research and Practice Perspective*, edited by Einarsen S, Hoel H, Zapf D, Cooper C. Taylor Francis.
5. Einarsen S., Hoel H., Zapf D. and Cooper C.L. (2003) *Bullying and emotional abuse in the workplace. International perspectives in research and practice.* Taylor and Francis, London/New York.
6. Richman JA, Rospenda KM, Nawyn SJ et al.: Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89: 358-363.
8. Book -- Repa, BK: *Your Rights in the Workplace*, 7th ed., Berkeley, Calif, Nolo Press, 2005.
9. Due P, Holstein BE, Lynch J, Diderichsen F, et al. Bullying and symptoms among school-aged children: international comparative cross sectional study in 28 countries. *Eur J Public Health*. 2005; Epub 2005 Mar 8.

### **SYMPOSIUM 38—SCREENING, DIAGNOSIS, AND MANAGEMENT OF ALCOHOL USE DISORDERS IN PSYCHIATRIC PRACTICE**

#### **Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to screen, assess, and treat heavy drinkers encountered in general psychiatric practice.

#### **No. 38A SCREENING, ASSESSMENT, AND MANAGEMENT USING THE NIAAA CLINICIANS GUIDE**

Mark L. Willenbring, M.D. *NIAAA/NIH, Div of Treatment and Recovery Research, 5635 Fishers Lane, Room 2047, Bethesda, MD, 20892*

#### SUMMARY:

In 2005, NIAAA published a new version of its popular Clinicians Guide. The new Guide has been modified in ways important to psychiatrists. First, the Guide is intended for use in general mental health settings, as well as primary care. Screening has been greatly simplified (a single question). Detailed information about conducting brief interventions and about prescribing anti-craving medication is provided. Recognizing the reality that many patients requiring psychiatric care may drink periodically or continuously, advice concerning disease management of chronic alcohol dependent is included. An algorithmic format and pocket card simplify implementation. Finally, an expanded FAQ section provides more detailed information. In this presentation, the Guide will be presented in detail. Emphasis will be on pragmatic factors to consider while implementing systematic screening, assessment, and management of heavy drinking in general psychiatric practice. This presentation will function as the anchor for the remaining talks, which focus on specific aspects of management of heavy drinking, such as motivational enhancement, pharmacotherapy, and reimbursement.

#### **No. 38B MOTIVATIONAL ENHANCEMENT STRATEGIES TO ADDRESS SUBSTANCE USE DISORDERS**

Douglas M. Ziedonis *UMDNJ, Robert Wood Johnson Medical School, Department of Psychiatry, Piscataway, NJ, 08854*

#### SUMMARY:

Alcohol use disorders are common amongst patients in mental health settings and yet many patients have relatively low and fluctuating levels of motivation to quit using alcohol. Patients will not follow through on referrals to Substance Abuse Treatment and the general psychiatrist is faced with addressing the low motivated patient. There are successful psychosocial treatment strategies that can be implemented. The NIAAA Clinicians Guide recommends specific psychosocial treatment interventions to help increase motivation, including the use of motivational enhancement therapy (MET). This presentation will focus on how general psychiatrists can integrate MET into their psychiatric practice and improve treatment outcomes. Randomized, controlled clinical trials in a variety of populations and settings have shown that brief interventions can decrease alcohol use significantly among people who drink above the recommended limits but are not dependent. Studies have found reductions of up to 30 percent in consumption and binge drinking over 12 months, as well as significant decreases in blood pressure readings, levels of gamma-glutamyl transferase (GGT), psychosocial problems, hospital days, and hospital readmissions for alcohol related problems. Helping a low motivated patient address an alcohol use disorder can be a difficult process, with progress interrupted by relapse to less healthy behaviors. Providing reinforcement, support, and thoughtful reflection during an office visit can often make the difference between long term success and failure. This presentation will provide specifics of MET, including the use of a motivational interviewing style and the effective use of providing personalized feedback. The presentation will include a discussion on strategies to better assess motivation to change, including developing treatment plans for the specific motivational levels of precontemplation, contemplation, preparation, action, and maintenance. The presentation will include ways to modify traditional MET for patients with co-occurring mental illness and substance use disorders.

#### **No. 38C INTEGRATING PHARMACOTHERAPY FOR ALCOHOL DEPENDENCE INTO GENERAL PSYCHIATRIC PRACTICE**

Hugh Myrick, M.D. *Medical University of South Carolina/Ralph H. Johnson VAMC, Department of Psychiatry, 67 President Street, Charleston, SC, 29425*

**SUMMARY:**

It has been suggested that only about 20% of individuals who have significant alcohol use disorders are identified and only about 20% of those identified actually receive treatment. Of individuals receiving treatment, only about 1% receive a medication targeting alcohol use. Medications provide a potentially important tool for helping patients with alcoholism. This presentation will review new developments in the pharmacotherapy of alcohol dependence. In particular, the use of disulfiram, naltrexone, and acamprosate, will be highlighted. These medications have been found to be helpful to patients in reducing drinking, reducing relapse to heavy drinking, achieving and maintaining abstinence, or a combination of these effects. The practical use of these approved medications including when to prescribe a medication to treat alcoholism, choosing which medication to prescribe, and safety concerns of each medication will be discussed.

**No. 38D**  
**MEETING THE ADDICTION MEDICINE NEEDS OF**  
**PATIENTS IN A GENERAL PSYCHIATRIC**  
**PRACTICE**

Michael M. Miller, M.D. *Meriter Hospital, Madison, WI, NewStart Alcohol/Drug Treatment Program, 202 South Park Street, Madison, WI, 53715*

**SUMMARY:**

Psychiatrists are medical specialists, not primary care physicians. However, for many patients, the psychiatrist is the 'principle physician', the main (if not the sole) physician the patient sees. Just as many patients with major chronic illnesses have their internal medicine subspecialist as their 'principle physician', many patients with chronic mental disorders see their psychiatrist much more often than their 'primary care provider' of record. The psychiatrist is thus the main point of contact between the patient and the medical system, and must be cognizant of his/her responsibilities to identify health concerns, generate appropriate referrals, and encourage patients to maintain their health status with periodic preventive medicine procedures (such as mammograms, colonoscopies, etc.).

Among the most common co-morbidities affecting persons with psychiatric illnesses are substance use disorders. There is a spectrum of substance use seen in patients who present to a psychiatrist for care: from at-risk use (no problem yet) to problem use (repeated problems with persistent use do constitute DSM-IV 'Abuse') to addictive use (DSM-IV 'Dependence'). While psychiatrists will ideally diagnose and treat or refer for DSM-IV Substance Dependence, they should also be cognizant of risky use and not fail to counsel their patients about risky health behaviors.

Professionals in 'smoking cessation', many of them non-physicians, have assisted primary care physicians to conceptualize their role in providing brief interventions for Nicotine Dependence. Drawing on the theoretical work of Prochaska and DiClemente regarding motivational assessment, and the writings of Hester, Miller, Rollnick and others regarding motivational enhancement and brief interventions, educators of family physicians have conveyed how each office visit can incorporate the principles of Ask, Advise, Assess Readiness to Change, Assist, and Arrange Follow-up—the "Five A's." These concepts are readily applicable to cases of alcohol and drug use other than tobacco use. This presentation will examine how general psychiatrists can apply the same tools in their usual practice settings to meet the needs of their own patients, with respect to alcohol use but also nicotine and other drug use. Also examined will be the appropriate role of the general psychiatrist and his/her interactions with addiction medicine specialists, primary care physicians, and non-physician chemical dependency professionals.

With the widespread application of the 'mental health carve-out' model for financing and delivering health care services in America,

primary care physicians are often excluded from the ability to treat (or at least, be paid to treat) persons with substance use conditions. In many communities, it falls to the general psychiatrist to offer alcohol detoxification services (on the psychiatry unit or elsewhere in the hospital), consultation-liaison services regarding substance use issues, and even services to patients receiving chronic medication treatment for non-malignant pain conditions. Psychiatrists would do well to arm themselves with general assessment and case management skills to meet these needs when called upon by physicians from 'non-behavioral' specialties. The appropriate use of urine drug tests and written treatment contracts will thus be discussed in this session as well.

**REFERENCES:**

1. Miller WR, Zweben A, DiClemente CC, Rychtarik RG: *Motivational Enhancement Therapy Manual*. Rockville, MD: US Department of Health and Human Services. NIH Publication No. 94-3723, 1995.
2. Myrick H, Anton R. Recent advances in the pharmacotherapy of alcoholism. *Current Psychiatry Reports*. 2004;6(5):332-338.
3. Kahler CW et al: Behavioral Interventions in Smoking Cessation. In *Principles of Addiction Medicine*, 3rd Ed., edited by Graham AW, Schultz TK, Mayo-Smith MF, Ries RK, and Wilford BB, Chevy Chase, Md, American Soc. of Addiction Med., 2003, p. 891-904.

**SYMPOSIUM 39—THERAPEUTIC**  
**NEUROMODULATION: METHODS AND**  
**MECHANISMS**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should understand the critical developments in the emerging platform of therapeutic neuromodulation, and develop a practical clinical understanding of the implications of this new information in the treatment decisions for patients diagnosed with difficult to treat depression.

**No. 39A**  
**THERAPEUTIC NEUROMODULATION- THE**  
**ARRIVAL OF A PARADIGM SHIFT**

Mark Demitrack, M.D. *Neuronetics, Inc., 1 Great Valley Parkway, Malvern, PA, 19355*

**SUMMARY:**

Among patients with Major Depression, a majority of patients experience difficulty achieving an acceptable clinical outcome from currently available treatments. Inadequate efficacy, poor tolerability, and concerns about unwanted toxicity due to sustained systemic exposures to antidepressant pharmacotherapies have accelerated the discussion for viable alternative approaches. Recent years have seen an increasing interest in a range of non-pharmacologic options for the treatment of depression, often referred to collectively as therapeutic neuromodulation. Among these treatment options, the best studied include transcranial magnetic stimulation (TMS), vagal nerve stimulation (VNS), and deep brain stimulation (DBS). Though differing substantially in their practical application, these approaches share some important mechanisms of effect, namely the utilization of an electrical stimulus capable of focal neuronal depolarization and consequently leading to regionally-specific functional changes in brain activity. Over the past year, these treatment options have moved from the research environment significantly closer to clinical practice. With their arrival, a paradigm shift in both the study and treatment of major depression is beginning to occur.

No. 39B

**VAGAL NERVE STIMULATION: A REVIEW OF THE EVIDENCE**

Philip G. Janicak, M.D. *Rush University Medical Center, Psychiatric Clinical Research Center, 1720 West Polk Street, Marshall Field V Building, Suite 107, Chicago, IL, 60612, Jeffrey T. Rado, M.D.*

**SUMMARY:**

Vagal nerve stimulation (VNS) involves a pacemaker-like pulse generator which stimulates the left vagus nerve. The FDA has approved VNS for refractory epilepsy and treatment-resistant depression (TRD). In an open pilot study, 59 unipolar and bipolar subjects received 8 weeks of fixed-dose VNS in addition to their stable psychotropic regimen. 31% demonstrated a  $\geq 50\%$  improvement in baseline Hamilton Depression Rating Scale (HDRS-28) scores, and 15% met remission criteria. Low to moderate resistant depressions had the highest response rates. In a double-blind trial, 235 TRD subjects received real or sham VNS. After 10 weeks, outcomes were similar between the two groups, but the Inventory of Depressive Symptoms-Self Rating (IDS-SR) scores improved more with active treatment ( $p < 0.03$ ). After 1 year, response and remission rates more than doubled in the 205 evaluable subjects. After 2 years, another analysis revealed significant improvement in the VNS group vs comparator-matched controls. Common adverse effects included voice alteration, hoarseness, cough, shortness of breath, dysphagia, and neck pain. In the controlled trial, 31 of 235 subjects (13%) experienced worsening of depression, and 25 attempted suicide. VNS has demonstrated efficacy for TRD in open-label and double-blind, sham-controlled trials with an acceptable adverse effect profile. Further experience will help identify patients most likely to benefit from VNS.

No. 39C

**REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (RTMS) AT 10 HZ IN THE TREATMENT OF PHARMACORESISTANT MAJOR DEPRESSION - RESULTS FROM A CONTROLLED MULTICENTER CLINICAL TRIAL**

John P. O'Reardon, M.D. *University of Pennsylvania, Psychiatry, 3535 Market Street, 3rd Floor, Suite 4005, Philadelphia, PA, 19104-3309*

**SUMMARY:**

**Objective:** To determine the safety and efficacy of repetitive transcranial magnetic stimulation (rTMS) at 10 Hz with the Neuronetics 2100 CRS System applied to the left dorsolateral prefrontal cortex in the treatment of major depression.

**Methods:** A total of 304 subjects aged 18 to 70, who failed to receive benefit from at least one and no more than four adequate trials of an antidepressant medication in the current episode, have been enrolled in this multicenter clinical trial comparing active rTMS at 10 Hz to sham rTMS. Sessions were at 120% of the derived motor threshold, 75 trains per session, 5 sessions per week for up to 6-weeks followed by a taper phase over 3 weeks. Efficacy was measured using the Hamilton Depression Rating Scale-24 item (HAM-D-24), Montgomery-Asberg Depression Rating Scale (MADRS), and measures of global clinical change. Safety measures included audiometry and neuropsychological testing at baseline and endpoint and spontaneous reports of adverse events at each visit.

**Results:** The results with rTMS relative to the sham/placebo will be presented including response and remission rates, as well as the overall change as detected by the HAM-D-24, MADRS, and Clinician Global Impression of Severity rating scales. Safety outcomes will also be reviewed.

**Discussion:** The implications of the results of this, the largest controlled study to date with rTMS in major depression, for the field of neuromodulation will be discussed.

No. 39D

**THERAPEUTIC NEUROMODULATION MECHANISMS OF ACTION**

Elliott Richelson, M.D. *Mayo Clinic, Department of Psychiatry, 4500 San Pablo Road, Jacksonville, FL, 32224*

**SUMMARY:**

Transcranial magnetic stimulation (TMS), vagal nerve stimulation (VNS), and deep brain stimulation (DBS) are the cutting-edge, non-pharmacologic treatments of depression, with the latter two presently reserved for treatment-resistant patients. All three treatments differ considerably in their practical application, but all share some important mechanisms of effect, namely focal neuronal depolarization that leads to functional changes in brain activity. Although not extensive, neuroimaging studies using positron emission tomography (PET), single photon emission computed tomography (SPECT), and functional magnetic resonance imaging (fMRI) in subjects given TMS, VNS, and DBS have been done. Data show many similarities in the brain areas that have increased or decreased activity with these three modalities of treatment, as well as similarities with pharmacotherapies and with cognitive-behavioral therapy. Such results support the notion of a frontal-limbic circuitry in major depression, as proposed by H.S. Mayberg and colleagues.

**REFERENCES:**

1. Demitrack, MA. Examining the Safety and Effectiveness of Transcranial Magnetic Stimulation (TMS): Challenges in Study Methodology and Clinical Trial Design, *Psychiatric Annals* 2005; 35(2):120-128.
2. Rado J, Janicak PG: Out of the pipeline: vagal nerve stimulation. *Current Psychiatry* 2005; (in press).
3. Gershon A, Pinhas N, Dannon MD, Grunhaus L: Transcranial Magnetic Stimulation in the treatment of depression. *Am J Psychiatry* 2003; 160:835-845.
4. Seminowicz DA, Mayberg HS, McIntosh AR, Goldapple K, Kennedy S, Segal Z, Rafi-Tari S: Limbic-frontal circuitry in major depression: a path modeling metanalysis. *Neuroimage* 2004; 22(1):409-18.

**SYMPOSIUM 40—APA RESEARCH AGENDA FOR DSM-V PERSONALITY DISORDERS****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium participants should be able to demonstrate an understanding of current ideas about dimensional perspectives on personality disorder and their implications for classification and clinical practice.

No. 40A

**ALTERNATIVE DIMENSIONAL MODELS: TOWARD AN INTEGRATION**

Thomas A. Widiger, Ph.D. *University of Kentucky, Department of Psychology, 115 Kastle Hall, Department of Psychology, Lexington, KY, 40506-0044*

**SUMMARY:**

The recognition of the many limitations of the categorical model of personality disorder classification has led to the development of

quite a number of alternative proposals for a dimensional classification. Presented in this paper are the major alternative proposals. It is unlikely that any one of them is without fault and it is likely that all of them have respective advantages and contributions. Presented in this paper is a single hierarchical structure in which the alternative proposals can be well integrated. It is suggested that future research work toward the further articulation of this common, integrative structure to facilitate a conversion of a future edition of the diagnostic manual to a dimensional structure.

**No. 40B**  
**ISSUES AND CHALLENGES IN DEVELOPING AN**  
**ETIOLOGICALLY-BASED DIMENSIONAL**  
**CLASSIFICATION OF PERSONALITY DISORDER**

Kerry L. Jang, Ph.D. *University of British Columbia, Psychiatry, 2255 Wesbrook Mall, Vancouver, BC, V6T 2A1, Canada*

**SUMMARY:**

The possibility of developing an etiologically-based dimensional classification of personality disorder based on the results of behavioral genetic research is examined. The starting point for such an approach is the convergence of findings across multiple studies of personality disorder phenotypes that 3 or 4 higher-order dimensions underlie personality disorder diagnoses. The robustness of this structure across clinical and non-clinical samples and different cultures suggests that it reflects fundamental differences in organization of personality pathology. These factors show some resemblance to some of the more common DSM-IV-TR diagnoses of borderline, antisocial, and schizoid-avoidant personality disorders making for some degree of continuity with categorical classifications.

Evidence from behavioral genetic studies that genetic influences on personality are pervasive: no aspect of personality seems immune to genetic influence.

It will be argued that the organization of traits reflects self-organizing effects of multiple genetic influences making it feasible to develop a genetically based classification of individual differences in personality disorder for DSM-V. The main challenge in developing a dimensional model lies in defining the primary traits that delineate the 4 factors and the definition of normal range and extreme personality function. At this level, there is less agreement across models and approaches. The possible contribution of behavioral genetic methods to resolving these problems will be discussed.

**No. 40C**  
**TOWARD A DEVELOPMENTAL VIEW OF**  
**PERSONALITY PATHOLOGY**

Rebecca L. Shiner, Ph.D. *Colgate University, Psychology, 13 Oak Drive, Hamilton, NY, 13346*

**SUMMARY:**

Over the last decade, there have been significant advances in our understanding of personality development in childhood and adolescence; this talk will review some of those advances and highlight their relevance for the proposed dimensional classification of personality disorders in the DSM-V. It has become increasingly clear that child temperament and adult personality traits share many features in common: Child and adult traits are influenced by both heredity and experience, involve the habitual experience of positive and negative emotions, and include dimensions tapping behavioral constraint. As is true in adults, youths' personalities can be described in terms of the Big Five personality traits: Extraversion, Neuroticism, Conscientiousness, Agreeableness, and Openness to Experience. These broad traits and their more narrow components have been identified through multiple methods across many studies of temperament and personal-

ity in preschoolers, elementary school-age children, and adolescents. Personality is already moderately stable by the preschool years, but considerable personality change continues well into the adult years. Taken together, these findings suggest that childhood personality functioning can and should be integrated into developmental research and applied work on personality disorders in two crucial ways. First, if a dimensional classification system is adopted for personality disorders in DSM-V, it may be possible to apply such a system to personality pathology in youths, given the overlap in personality traits observed in children, adolescents, and adults. Second, remarkably little is known about the developmental pathways leading to personality disorders in adults; to fill this gap, it will be necessary to study the ways that children's early traits interact with their experiences to shape pathological personality functioning.

**No. 40D**  
**THE MAJOR DIMENSIONS OF PERSONALITY:**  
**CROSS-CULTURAL EVIDENCE BASED ON THE**  
**LEXICAL APPROACH**

Kibeom Lee, Ph.D. *Calgary, AB*

**SUMMARY:**

The structure of personality variation is discussed from the perspective of the lexical approach, which is based on the examination of relations among personality-descriptive adjectives that are indigenous to various languages. Lexical investigations in several Indo-European and non-Indo-European languages have consistently recovered a common structure of personality characteristics that shares many features in common with the well-known Big Five structure. Among the cross-culturally replicated personality factors are dimensions corresponding to Big Five Extraversion, Conscientiousness, and Openness to Experience dimensions. In addition, variants of the Big Five Agreeableness and Neuroticism/Emotionality dimensions are also recovered, albeit with some shifting of characteristics between those factors, and with the emergence of Honesty-Humility characteristics as a separate dimension. We suggest that the widespread recovery of this structure provides cross-cultural support for efforts to develop models summarizing normal and abnormal personality variation, and also contributes data that can help delineate the detailed features of those models.

**No. 40E**  
**CLINICAL APPLICATION OF A DIMENSIONAL**  
**MODEL OF PERSONALITY DISORDER**

John Livesley *University of British Columbia, Department of Psychiatry, 2255 Wesbrook Mall, Vancouver, BC, V64 1L1, Canada*

**SUMMARY:**

A common objection to the implementation of a dimensional model of personality disorder is that it is less practical than traditional models and less conducive to clinical decision-making. This paper seeks to show that such concerns are ill-founded. Trait models are readily incorporated into the diagnostic process and the detail provided is useful in planning treatment and implementing interventions at all stages of treatment. The four-factor structure assumes that personality disorder traits are hierarchically organized with the higher-order traits of emotional dysregulation, dissociative behavior, inhibitedness, and compulsivity subdividing into more specific traits. For example, emotional dysregulation sub-divides into anxiousness, affective lability, submissiveness, insecure attachment, and cognitive dysregulation. This offers a flexible framework for assessing personality pathology that provides a detailed profile of problems and assets that is useful in treatment planning.



The four broad patterns provide a convenient description of broad differences in personality that are directly relevant to treatment planning. Although the treatment of all forms of personality disorder is based on some common elements, the evidence suggests that these patterns have different prognoses and treatment responses and require different therapeutic approaches. In some clinical situations, assessment at this level will be sufficient for immediate clinical management. When longer term treatment is planned, the subcomponents of each pattern provide a detailed description of important features of personality that are useful in anticipating likely problems and in identifying targets for intervention. The use of this model in longer-term treatment will be illustrated with case examples.

#### REFERENCES:

1. Widiger TA, Simonsen, E: The American Psychiatric Association's research agenda for DSM-V. *J Pers Disord* 2005; 19: 103-109.
2. Jang, KL: The behavioural genetics of psychopathology. A clinical guide. New Jersey, Erlbaum, 2005.
3. Shiner RL: A developmental perspective on personality disorders: Lessons from research on normal personality development in childhood and adolescence. *J Personal Disord* 2005; 19:202-210.
4. Ashton MC, Lee K, Perugini M, Szarota P, de Vries RE, di Blas L, Boies K, de Raad B: A six-factor structure of personality-descriptive adjectives: solutions from psycholexical studies in seven languages. *J Pers Soc Psychology* 2004; 86:356-366.
5. Livesley WJ: *Practical Management of Personality Disorder*, New York, Guilford Press, 2003.

### SYMPOSIUM 41—SLEEP, FATIGUE, AND DEPRESSION IN MEDICALLY-ILL PATIENTS

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to 1. understand the possible links between sleep, fatigue and depression especially the interaction between sleep and depression in medically ill patients 3. understand the negative impact of depression, sleep problems and pain in patients with diabetes mellitus 4. recognize the impact of sleep disorders and depression on quality of life and survival of patients with end-stage renal disease and after kidney transplantation 5. understand the negative impact of fatigue and sleep on cancer patients as well as the effect of chemotherapy on these variables

#### No. 41A SLEEP AND FATIGUE IN BREAST CANCER

Sonia Ancoli-Israel *University of California, San Diego, Psychiatry Department, 3350 La Jolla Village Dr, Psychiatry 116A VASDHS, San Diego, CA, 92161*

#### SUMMARY:

Fatigue is a common and distressing complaint among cancer patients, interfering with quality of life and continuation of treatment. Fatigue may be related to disrupted sleep, circadian rhythms and low light exposure. An analysis of 85 women newly diagnosed with breast cancer and scheduled to receive chemotherapy was conducted. Data were collected before and during chemotherapy. Sleep/wake and light exposure were recorded with actigraphy for 72-hours. Questionnaires were completed on sleep, fatigue, depression and functional outcome. Before chemotherapy, women slept for about six hours a night and napped for over an hour during the day. Sleep was reported to be disturbed and fatigue levels were high. Changes in light exposure and sleep, and changes in fatigue during chemotherapy were significantly correlated. Data suggest that the women with

breast cancer likely experience both disturbed sleep and fatigue before the beginning of chemotherapy. Once chemotherapy began, fatigue increases and sleep worsens. Although cause and effect cannot be determined from these data, fatigue and sleep, and fatigue and circadian rhythms were significantly related. Studies evaluating the effect of synchronizing circadian rhythms on fatigue during chemotherapy may be warranted. Supported by CA85264, RR00827, Research Service of VASDHS.

#### No. 41B SLEEP, FATIGUE, PAIN AND DEPRESSION IN PATIENTS WITH DIABETES MELLITUS

Wayne J. Katon, M.D. *University of Washington Medical Center, Department of Psychiatry & Behavioral Sciences, 1959 NE Pacific Street, Box 356560, Seattle, WA, 98195-6560, Michael Von Korff, Sc.D., Elizabeth H.B. Lin, M.D., Gregory E. Simon, M.D., Paul S. Ciechanowski, M.D.*

#### SUMMARY:

This talk will describe the adverse effect of depression and sleep problems on symptom burden, functional impairment, adherence to self-care regimens, pain, and mortality in 4800 patients with diabetes mellitus. Depression has been found to be associated with a more significant impact on diabetes symptoms and functioning compared to number of diabetes complications. Depression and sleep problems both independently have a maladaptive effect on self-care regimens in patients with diabetes. Patients with both major and minor depression and diabetes were shown to have increased mortality over three years compared to those with diabetes alone even after controlling for demographic and clinical confounders and potential mediators. Two recent randomized control trials of a nurse depression collaborative care program versus usual primary care have shown that the intervention was associated with improved medical outcomes and a high probability of savings in overall medical costs.

#### No. 41C INSOMNIA, DEPRESSION, QUALITY OF LIFE AND SURVIVAL IN PATIENTS WITH END-STAGE RENAL DISEASE AND FOLLOWING RENAL TRANSPLANTATION

Marta Novak, M.D. *Semmelweis University, Institute of Behavioral Sciences, Nagyvarad ter 4, Budapest, 1089, Hungary, Miklos Z. Molnar, M.D., Istvan Mucci, M.D.*

#### SUMMARY:

Recent studies confirmed that sleep disorders and depression have significant impact on different aspects of quality of life (QOL) of patients with chronic kidney disease. There is a lack of studies investigating these issues in the patients after kidney transplantation. Earlier we have shown that insomnia and Restless Legs Syndrome (RLS) play an important role in the quality of life of patients on dialysis.

In our recent study, 884 kidney transplanted (TX) patients and 183 waitlisted dialysis patients (WL) completed a battery of questionnaires assessing depression, sleep disorders and QOL. Insomnia was significantly associated with depression, and in a multivariate model the severity of depression, RLS and high risk for obstructive sleep apnea were significantly and independently associated with the insomnia score. The prevalence of depression was significantly higher in TX vs WL patients. Depression predicted the combined outcome (graft survival and patient survival) after 2 years.

As both sleep disorders and depression are potentially treatable, attention should be directed to the appropriate diagnosis and manage-

ment of these disorders in the transplanted population and in patients with end-stage renal disease.

#### No. 41D

### **SLEEP DISRUPTION, FATIGUE, AND DEPRESSION IN THE MEDICALLY ILL**

Colin M. Shapiro, Ph.D. *University Health Network, Toronto Western Hospital, Psychiatry, 399, Bathurst Street, MP7-421, Toronto, ON, M5T 2S8, Canada*

#### **SUMMARY:**

There is increasing evidence of a reciprocal interaction between sleep disruption and depression. There is the recent observation that of the vegetative features of depression there is more likelihood of relapse when the features of sleep disruption and fatigue are not fully treated as compared to other vegetative features of depression. These observations as well as the well established biological markers of depression in sleep architecture studies emphasize the importance of addressing sleep issues in depressed patients in general and in the population of depressed patients with other medical illnesses, in particular. The subjective experience of many medical illnesses is to exacerbate fatigue.

In a recent editorial "Depression and Vital Exhaustion before and after myocardial infarction" the gender divide in terms of entry to rehabilitation points to educational implications and the observation that exhaustion rather than depression may be key in the long term outcome of myocardial infarction is noteworthy.

The notion that fatigue and sleepiness are the same has been debunked in a number of recent publications<sup>2</sup>. The need to clarify the role of each of these neurobiological states in triggering depression in the medically ill needs to be clarified.

#### **REFERENCES:**

1. Ancoli-Israel S, Moore P, Jones V. The relationship between fatigue and sleep in cancer patients: A review. *European Journal of Cancer Care* 10(4):245-255, 2001.
2. Katon W, Von Korff M, Ciechanowski P, Russo J, Lin E, Simon G, Ludman E, Walker E, Bush T, Young B: Behavioral and clinical factors associated with depression among individuals with diabetes. *Diabetes Care* 2004; 27:914-920.
3. Molnar MZs, Novak M, Ambrus Cs, Szeifert L, Kovacs A, Pap J, Rempert A, Mucsi I: Restless Legs Syndrome in patients after renal transplantation. *A J Kidney Diseases*, 2005;45:388-96.
4. Shapiro CM, Depression and Vital Exhaustion before and after myocardial infarction. *J Psychosomatic Research* 58:391-392:2005
5. Hossain JL, Ahmad P, Reinish LW, Kayumov L, Hossain NK, Shapiro CM. Subjective fatigue and subjective sleepiness: two independent consequences of sleep disorders? *J Sleep Res.* 2005 Sep;14(3):245-53.

## **SYMPOSIUM 42—SCALING UP AGAINST HIV/AIDS: A CULTURALLY SENSITIVE AND COMPREHENSIVE APPROACH**

#### **EDUCATIONAL OBJECTIVES:**

At the end of the symposium participants will become more aware of the cultural relevant issues in the prevention and control of the HIV/AIDS pandemic.

#### No. 42A

### **UNDERSTANDING THE LINKAGES BETWEEN HIV/AIDS AND DEVELOPMENT**

Scholastica Kimaryo *UNDP, P.O. Box 6541, Pretoria, 0001, South Africa*

#### **SUMMARY:**

While it is generally agreed that HIV/AIDS is a medical and health catastrophe, the tendency to focus almost exclusively on this aspect of the epidemic has served to camouflage the severe long-term consequences on the socio-economic development of societies most afflicted by it. This approach has also restricted the breadth of human and other resources that can be brought to bear in responding to the disease. Understanding the linkages between HIV/AIDS and development, a part of a holistic approach to the response to the challenge of the disease, is of critical importance if we are to devise a comprehensive approach to overcoming the disease and its devastating impact on people and society. This presentation will outline the direct and indirect correlation between both, and highlight some of the key policy issues that must be addressed in order to maximize the benefits derivable from the deployment of limited resources. Seeking to advance development as a specific objective in confronting the HIV/AIDS challenge offers unique opportunities for turning the HIV/AIDS crisis into a development opportunity. Such issues as mobilising for an HIV-competent society, core-streaming HIA/AIDS into every sector of socio-economic development, impact mitigation measures, catalytic actions by governments, and more will be addressed. The role that the international development community, especially the United Nations and its specialised agencies, have played, continue to and can play in the response to the disease will be discussed.

#### No. 42B

### **CULTURE, INDIGENOUS KNOWLEDGE AND INFORMATION, AND COMMUNICATIONS TECHNOLOGY IN THE RESPONSE TO THE HIV/AIDS CHALLENGE**

Joseph Okpaku, M.D. *Telecom Africa Corporation, 222 Forest Avenue, New Rochelle, NY, 10804*

#### **SUMMARY:**

Culture, tradition and indigenous knowledge play a crucial role in any coherent and comprehensive response to large-scale disease such as HIV/AIDS, and in the corresponding healing process. The virtually exclusively clinical approach to the response to the disease has presumed a singular and universal response model. This might inadvertently have been partly responsible for some of the obstacles to success of the global HIV/AIDS strategy. The wholesale exportation of HIV/AIDS strategies designed in one part of the world to other societies with distinctively different culture and tradition, without resorting to local norms as the primary context for such strategies, have proved to be problematic. This practice has not only undermined the potential for success of many such programmes, but has in turn led to resentment on the part of the receiving society, and frustration on the part of the assisting organisations. The additional infusion or embedding of extraneous culturally biased messages in the HIV/AIDS message has triggered the resistance of what the author calls "the cultural immune system (CIS), in an effort to protect indigenous culture and knowledge. The author will address the potential benefits of seeking relevant knowledge of indigenous beliefs and behaviour, and employing local traditional norms and practices as the context for deploying the message and treatment of the disease. This would involve adopting traditional mechanisms of communicating critical social message in support of the response to the disease, and mobilising local traditions in the design of the response, as a means of

turning the HIV/AIDS crisis into an opportunity. The presentation will also detail opportunities that can be derived from the deployment of Information and Communications Technology as a useful and versatile tool in the strategic response to HIV/AIDS.

No. 42C

### **DEFINING AND DESCRIBING A MODERN EPIDEMIC: THE CASE OF HIV/AIDS IN SUB SAHARA AFRICA**

Samuel O. Okpaku, M.D. *Meharry Medical College, Psychiatry, 1005 D.B. Todd Boulevard, Nashville, TN, 37208*

#### **SUMMARY:**

Ring around the roses, pocket full of posies, ashes, ashes, we all fall down. Nursery Rhyme. The history of man has often been punctuated by epidemics. Epidemics of typhoid fever, cholera and influenza are but a few examples. These plagues have frequently inspired literary creations such as nursery rhymes and more serious work such as *The Plague* by Camus.

This modern epidemic of HIV/AIDS in Africa is simultaneously unique and similar to previous plagues. The world is shrinking and there is the general and specialized media. Even then the statistics cannot fully describe the extent of personal suffering, family stressors and threats to local and national communities and their aspirations. An illness/disease entity exists within a cultural context. The response it generates is dependent on the psychosocial and cultural context. These systems traditionally define who is in need, what the resources are and how the resources are to be apportioned. In addition, these responses are complicated in the absence of cultural sensitivity especially against a background of foreign aid and "expertise."

This paper will attempt to tease out aspects of the African ethnic and social support systems that are integral to understanding the epidemic and the response to it. Some comments will be made on the complications of foreign aid.

No. 42D

### **PTSD: Looking Towards DSM-V**

Vladimir Berthaud, *Meharry Medical College, Department of Infectious Disease, 1005 D.B. Todd Boulevard, Nashville, Tennessee, 37208*

#### **SUMMARY:**

At the end of this presentation, participants will become more familiar with the challenges facing the implementation of culturally-adapted HIV/AIDS programs in resource-poor countries like Haiti.

#### **REFERENCES:**

1. Kimaryo SS, Okpaku JO, Githku-Shongwe A, Feeney J: Turning a Crisis into an Opportunity: Strategies for Scaling Up the National Response to the HIV/AIDS Pandemic in Lesotho: New Rochelle, N.Y. Third Press Publishers, 2004.
2. Kimaryo SS, Okpaku JO, Githku-Shongwe A, Feeney J; Turning a Crisis into an Opportunity: Strategies for Scaling Up the National Response to the HIV/AIDS Pandemic in Lesotho: New Rochelle, N. Y. Third Press Publishers, 2004.
3. UNDP Regional Project on HIV and Development in Sub-Saharan Africa. Concept Paper, Conceptual Shifts for Sound Planning: Towards an Integrated Approach to HIV/AIDS and Poverty. UNDP Regional Project on HIV and Development in Sub-Saharan Africa.
4. Berthaud V. AIDS in Africa: Epidemiology, clinical spectrum, and control interventions in: AIDS in Africa, the WAKE Project, October 2002.

## **SYMPOSIUM 43—SUICIDE RESEARCH IN CANADA**

### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able: 1) To present recent research on the causes and management of suicidality and suicide 2) To show how this research applies to clinical management

No. 43A

### **NEUROBIOLOGICAL STUDIES OF SUICIDE COMPLETERS**

Gustavo Turecki, Ph.D. *Douglas Hospital and McGill University, Psychiatry, 6875 Lasalle Blvd, Montreal, PQ, H4H 1R3, Canada*

#### **SUMMARY:**

Several lines of evidence confirm the strong association between major depressive disorder (MDD) and completed suicide. However, not all individuals with MDD commit suicide. Genes along with other biological and behavioral factors account for at least part of this difference. Our group has been conducting a series of studies to better understand the phenotype of patients with major depressive disorder that died by suicide and to investigate genetic factors that may account for at least part of the predisposition to suicide. In this symposium, we will discuss studies investigating brain gene expression patterns of serotonergic genes, impulsive-aggressive personality traits and psychosocial stressors in MDD suicide.

No. 43B

### **PROSPECTIVE COMMUNITY STUDY OF SUICIDALITY IN YOUNG ADULTS**

Joel F. Paris, M.D. *SMBD Jewish General Hospital, McGill Univer., Department of Psychiatry, 4333 Cote Ste-Catherine Rd, Montreal, PQ, H3T 1E4, Canada*

#### **SUMMARY:**

**Objective:** The purpose of this study was to examine the relationship of personality traits and childhood behavioral patterns to suicidality in young adults. The sample consisted of a longitudinally followed general population cohort of men (n=1587) and women (n=1419) aged 21-24.

**Methods:** Suicidality was measured by the Beck Scale for Suicidal Ideation. The Scale for Suicidal Intent was administered to subjects who had made at least one attempt (5% of the men and 10% of the women). Personality traits were assessed with the Diagnostic Assessment of Personality Pathology (DAPP-BQ) and the Barratt Impulsivity Scale (BIS). The Social Behavior Questionnaire (SBQ) had been scored by teachers when the subjects were 9 years old. All subjects had also been administered the Diagnostic Interview Schedule for Children (DISC) at age 15.

**Results:** Logistic regression analyses demonstrated significant relationships between both cross-sectional and longitudinal variables and the presence of suicide attempts. These included childhood sexual abuse (p=.0005), presence of an DSM-III-R anxiety disorder at age 15 (p=.022); affective instability as measured by the DAPP-BQ (p=.035); self-harm (DAPP-BQ) (p=.005) and life-long comorbidity (p=.024). Childhood sexual abuse p=.018) and DAPP-BQ self-harm (p<.005) also increased the risk for multiple attempts. Suicidal ideation scores were dichotomized using a cut-off of 6. In logistic regressions, significant relationships were found with gender (p=.002), traits of Impulsivity (p=.01), DAPP-BQ self-harm (p=.005), and DAPP-BQ restricted expression (p=.022). The significant longitudinal variables from the SBQ were Aggression (p=.040), antisocial (p=.013), and oppositional behaviors (p=.034).

Conclusions: These findings suggest that suicidality in young adults is predicted by both internalizing and externalizing behaviors.

**No. 43C**  
**AFFECTIVE INSTABILITY AND SUICIDALITY IN BPD**

Paul S. Links, M.D. *University of Toronto, Department of Psychiatry, TBD, Toronto, ON, M5B 1W8, Canada*

**SUMMARY:**

Objective: Given that affective instability may be related to the risk of suicide in patients with BPD, the purpose of this study was to specify the nature of the affective disturbance that directly and independently increases the risk of suicide. The specific aims of this study were to test the above hypotheses using real-time measures (or Experienced Sampling Methodology) of four aspects of affective instability and to examine their relationship to suicidal ideation in patients with BPD:

1. the magnitude of changes in mood amplitude from high to low;
2. the relationship or variability in one mood measurement to the next as a measure of affective dyscontrol;
3. the average of intensity of daily negative mood ratings and
4. the proportion of mood ratings triggered by environmental triggers.

Next, the predictive significance of these four aspects for the risk of suicide ideation was studied in patients with BPD after controlling for other proposed personal risk factors such as depressive symptoms, hopelessness, impulsivity and recent life events.

Method: We chose to utilize an Experience Sampling Methodology (ESM) for this study, in order to capture the characteristics of frequent affective changes in the study participants. This research methodology employs signaling devices to sample, at randomized points in time, the subjective experience of persons in their natural environments. Eighty-two subjects meeting criteria for BPD and with a history of previous suicidal behavior were followed prospectively for one month during which time they randomly recorded, 126 times, their current mood states. The primary outcomes were the level of self-reported and observer-reported suicidal ideation.

Results: The affective instability item on the SCID-II was endorsed by nearly all of the participants (98.8%); however, with regards to the four aspects of affective instability measured in real time, the subjects showed considerable variability. Of the four aspects of affective instability, the only significant correlation with the DAPP affect lability subscale was with the intensity of negative mood rating ( $r=0.24$ ). Accounting for other personal risk factors for suicide in multiple regression analyses, only the level of intensity of negative mood was found to be significantly related to the patients' self-reported level of suicidal ideation and to their lifetime history of parasuicidal events.

Conclusions: Two major new findings arise from the Experience Sampling Methodology utilized in this research. First, the determination of mood variability based on patients' report of affective instability at a single point in time is not a reliable indicator of the daily rating of mood variation. The current findings indicate that the affective instability of patients with borderline personality disorder is characterized by high levels of intense negative mood and these negative mood states, versus other aspects of mood variability, seem to be most closely tied to the occurrence of suicidal ideation and parasuicidal behavior.

**No. 43D**  
**CLINICAL GUIDELINES FOR SUICIDALITY**

Isaac Sakinofsky, M.D. *University of Toronto & CAMH, Psychiatry, 250 College St, Toronto, ON, M5T 1R8, Canada*

**SUMMARY:**

Evidence-based medicine is a powerful educational movement begun out of a need to inform clinicians of the degree of science behind existing and new treatment practices in circulation. Since this beginning formal guidelines have been developed by the various branches of medicine for groups of diseases, including psychiatric disorders. Unlike the clinical disorders treated in other branches of medicine and even within the general body of psychiatry, suicide and suicidality are complex behaviors, not diseases, with morbid cognition as their necessary precursor. They can arise within the context of every kind of psychiatric disorder, and even in persons who have no definable psychiatric disorder.

The recent *Practice Guideline for the Assessment and Treatment of Patients with Suicidal Behaviors* of the APA (2003) is a comprehensive review extremely useful to clinicians. Similarly, the Australian and New Zealand Psychiatric Association has issued practice guidelines for the management of adult self harm (2004) and other regional psychiatric bodies are following suit, including the Canadian Psychiatric Association. This paper aims at describing the problems in defining best practices in a field where so many gaps exist in terms of treatments evaluated by the highest accepted levels of scientific study, and many clinical acts are based on tradition and common sense. The highlights of best treatment practice recommendations on suicidality from a Canadian task force will be presented.

**REFERENCES:**

1. Turecki G, Sequeira A, Gingras Y, Seguin M, Lesage A, Tousignant M et al: Suicide and serotonin: Study of variation at seven serotonin receptor genes in suicide completers. *Am J Medical Genetics* 2003; 118:36-40.
2. Tremblay RE, Pihl RO, Vitaro F, Dobkin PL: Predicting early onset of male antisocial behavior from preschool behavior. *Arch Gen Psychiatry* 1994; 51:732-739.
3. Links PS, Heisel MJ, Garland A: Affective instability in personality disorders. *Am J Psychiatry* 2003; 160:394-5.
4. APA Task Force: Practice guidelines for the assessment and treatment of patients with suicidal behaviors. Washington, DC, American Psychiatric Press, 2003.

**SYMPOSIUM 44—NEUROBIOLOGICAL BASIS FOR CO-OCCURRING SUBSTANCE ABUSE AND OTHER PSYCHIATRIC DISORDERS**  
**National Institute on Drug Abuse**

**EDUCATIONAL OBJECTIVES:**

"This symposium will present research aimed at testing hypotheses that could explain, at the neurobiological level, the high prevalence of co-occurrence of drug abuse and other psychiatric disorders. At the end of the symposium, the audience should understand the major hypotheses that might explain this co-morbidity, and how they can be tested in human clinical populations and in animal models."

**No. 44A**  
**SMOKING AND SCHIZOPHRENIA: DOES CO-MORBIDITY OF SUBSTANCE ABUSE AND DISEASE SUGGEST SELF-MEDICATION?**

Sherry Leonard, Ph.D. *University of Colorado at Denver and Health Sciences C, Psychiatry, Mail Stop 8344, P.O. Box 6511, Aurora, CO, 80045, Sharon Mexal, Ph.D., Ralph Berger, B.S.*

**SUMMARY:**

The prevalence of smoking in schizophrenia is much higher than in the general population (>80%). It has been suggested that this could represent a form of self-medication. Nicotine, delivered as either gum or in cigarettes, normalizes the auditory evoked potential deficit (P50) seen in most all schizophrenics. Nicotinic receptors, the first point of response for nicotine in the brain, are reduced in number in schizophrenic smokers, compared to control smokers. We have recently completed a study of global gene expression differences in postmortem hippocampus of control and schizophrenic smokers and non-smokers. A total of 34 subjects were studied. Our findings show that the expression of more than 200 genes is changed in smokers. The two most significantly altered gene groups were genes of the NMDA postsynaptic density and genes functioning in the immune system. When the effects of smoking were compared in controls and schizophrenics, we found that smoking in schizophrenics differentially regulated more than 70 genes. For most of these differentially regulated genes, the expression levels in schizophrenic non-smokers were different from control non-smokers, but brought to control expression levels in the schizophrenic smokers. Expression levels were unchanged by smoking in the controls. Genes in the NMDA postsynaptic density, including the alpha 7 nicotinic receptor, and in the immune system fell into this class. Differential regulation of the NMDA postsynaptic density supports involvement of glutamatergic signaling in schizophrenia. Similar effects on immune system transcripts may also affect synaptic plasticity. The normalization of gene expression in these systems by smoking is consistent with a self-medication hypothesis.

## No. 44B

**INSIGHTS FROM ANIMAL MODELS OF DUAL DIAGNOSIS: HOW COMMON NEUROCIRCUIT ABNORMALITIES UNDERLIE BOTH MENTAL ILLNESS AND ADDICTION VULNERABILITY**

Robert A. Chambers, M.D. *Indiana University School of Medicine, Institute of Psychiatric Research, 791 Union Drive, Indianapolis, IN, 46202*

**SUMMARY:**

Dual diagnosis is a problem of tremendous depth and scope where substance use disorders involving addictive drugs of differing psychoactive profiles are frequently co-morbid across a broad spectrum of psychiatric disorders. Studying animal models of psychiatric disorders in preclinical addiction paradigms is a pathway toward understanding the fundamental brain mechanisms underlying the common themes and heterogeneous presentations of dual diagnosis disorders. Investigations using neurodevelopmental and adult-onset lesion models of mental illness, suggest the unitary nature of mental illness and addiction vulnerability both on the neurocircuit and clinical-behavioral levels. Further investigations using animal models of dual diagnosis will specify how environmental and genetic determinants acting through developmental stages conspire to alter neural networks commonly involved in psychiatric syndromes and the addiction process.

## No. 44C

**NICOTINE-INDUCED SENSITIZATION AND ADHD**

Jean King, Ph.D. *Univ. of Massachusetts Medical School, Psychiatry, 55 Lake Avenue North, Worcester, MA, 01655*

**SUMMARY:**

Psychiatric disorders such as attention deficit hyperactivity disorder (ADHD), schizophrenia, major depression, and anxiety disorders

have been associated with an increased vulnerability to developing nicotine dependence. There are several lines of evidence that support the role of nicotine in enhancing cognitive functions such as attention and memory. Some researches have hypothesized that nicotine may be utilized as a means of self-medication among those afflicted with ADHD. This study investigated whether ADHD contributed to the development of nicotine sensitization. To accomplish this task, an animal model of ADHD the Spontaneously Hypertensive rat (SHR), was compared to Wistar-Kyoto rat (WKY), the normotensive control. Animals received either nicotine (0. 4kg/mg) or saline on a daily basis for six days to establish dependence. Animals were monitored daily for changes in locomotor activity. Seven days after nicotine abstinence, rats were imaged using a 4.7-T Bruker microimager and BOLD (blood oxygenation level-dependent) activation was monitored in response to an intravenous nicotine injection. Intermittent exposure to nicotine resulted in significant behavioral sensitization, which was accompanied by neuronal activation in cortical and sub-cortical regions in both strains. However, SHR rats displayed a more robust behavioral sensitization and enhanced BOLD response in the cortical sites including the temporal and retrosplenial cortex. Therefore, nicotine administration resulted in increased neuronal activation in brain regions previously associated with decreased cerebral blood flow in ADHD. As such nicotine sensitization in ADHD maybe more highly associated with both cognitive and emotional factors.

*Support Contributed By: Grant R01 MH067096 from the National Institute of Mental Health, National Institutes of Health*

## No. 44D

**EFFECTS OF NICOTINE AND OTHER DRUGS OF ABUSE ON COGNITIVE DYSFUNCTION IN INDIVIDUALS WITH SCHIZOPHRENIA**

Tony P. George, M.D., *Yale University School of Medicine, Psychiatry, 34 Park Street, Rm. S-109, New Haven, CT, 06519*

**SUMMARY:**

This presentation will review evidence that nicotine, marijuana and other drugs of abuse may alter cognitive function in patients with schizophrenia, and that pre-existing cognitive deficits in this disorder may predispose to the initiation and maintenance of drug addiction. Specifically, the example of nicotine dependence in patients with schizophrenia will be discussed insofar as recent experiments suggesting that nicotinic receptor activation by cigarette smoking is associated with remediation of selected neurocognitive deficits including visuospatial working memory, sustained attention and prepulse inhibition in smokers with schizophrenia as compared to non-psychiatric control smokers. The role of prefrontal cortical (PFC) mechanisms will also be addressed with an emphasis on prefrontal dopaminergic, nicotinic cholinergic and glutamatergic pathology, and how the degree of dysfunction of PFC-dependent neurocognition in schizophrenia may determine substance abuse treatment outcomes in schizophrenia. Taken together, data presented collectively support the development of pharmacological treatments that target PFC dopaminergic, nicotinic and glutamatergic dysregulation for the treatment of nicotine dependence in this disorder, as well as associated neurocognitive endophenotypes.

**REFERENCES:**

1. Journal Article - Mexal,S.; Frank,M.; Berger,R.; Adams,C.E.; Ross,R.G.; Freedman,R.; Leonard,S. Differential modulation of gene expression in the NMDA postsynaptic density of schizophrenic and control smokers. *Molecular Brain Research* 2005 In Press.
2. Chambers, RA, Krystal, JH, Self, DW. (2001) fA neurobiological basis for substance abuse comorbidity in schizophrenia§ *Biological Psychiatry*, 50:2: 71-83.

3. King JA, Ferris CF, Lederhendler I: Roots of Mental Illness in Children. *Annals of New York Academy of Sciences* Vol. 1008. Ny Ny 2003.
4. Sacco, K.A. et al: Effects of cigarette smoking on spatial working memory and attentional deficits in schizophrenia: Involvement of nicotinic receptor mechanisms. *Arch. Gen. Psychiatry* 2005; 62: 649-659.

order to decrease the risk for arrest in bipolar patients, clinicians can screen and refer patients for substance use disorders, stabilize mania in hospital settings, and take measures to improve outpatient adherence in the post-manic hospitalization period. Psychiatric advance directives, new developments in civil commitment law, and mental health courts are legal mechanisms that may be critical in preventing the criminalization of those with bipolar disorder.

## SYMPOSIUM 45—BIPOLAR DISORDER AND THE U.S. LEGAL SYSTEM

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant will be better able to understand the public health implications and clinical correlates of bipolar disorder that are associated with history of arrest and or incarceration.

### No. 45A BIPOLAR DISORDER AND THE LEGAL SYSTEM

Mark A. Frye, M.D. *University of California at Los Angeles, Department of Psychiatry, 300 UCLA Medical Plaza, Suite 1544, Los Angeles, CA, 90095-6968*

#### SUMMARY:

It is increasingly clear that many individuals with bipolar disorder are receiving their psychiatric care within the U.S. correctional system (jail and prison). The symposium will review bipolar illness clinical correlates associated with psychiatric care behind bars.

Dr Frye will provide an introduction to the symposium by highlighting a case report that exemplifies how the illness course of mania invariably interfaces with the law in the state of California.

Dr. Quanbeck will review clinical correlates of bipolar patients who have been arrested and incarcerated at the Los Angeles County Jail. Furthermore, he will examine health care utilization patterns (ie. number and length of hospital stay, history of conservatorship) of bipolars with and without a history of arrest.

Dr. Goldstein will review the National Epidemiologic Survey of Alcohol and Related Conditions to compare illness morbidity and healthcare utilization in bipolar patients with and without a forensic history.

Dr. Walsh will compare the US and UK from the standpoint of models of service delivery for the severely mentally ill with a history of violent criminality.

Dr. McElroy will lead the discussion reviewing these four presentations.

### No. 45B CLINICAL AND LEGAL CHARACTERISTICS OF INMATES WITH BIPOLAR DISORDER

Cameron D. Quanbeck, M.D. *University of California Davis Medical Center, Psychiatry, 2230 Stockton Boulevard, Sacramento, CA, 95817*

#### SUMMARY:

Individuals with bipolar disorder are at an increased risk of criminal arrest compared to those in the population at large. The combination of manic symptoms and substance misuse appear to be the primary illness factors for this increased risk. These illness factors work together to impair impulse control and can lead to aggressive behaviors. The public mental health system has faced challenges in treating these patients successfully in community settings. Patients with bipolar disorder who are arrested appear to have frequent, brief hospitalizations and difficulty adhering to outpatient treatment. In

### No. 45C AN EPIDEMIOLOGIC PERSPECTIVE ON FORENSIC HISTORY IN BIPOLAR I DISORDER

Benjamin I. Goldstein *University of Toronto, Department of Psychiatry, Toronto, ON, M4N 3M5*

#### SUMMARY:

*Objective:* To compare illness morbidity and healthcare service utilization among individuals with bipolar I disorder (BD) with or without a forensic history.

*Method:* The 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions identified respondents with lifetime BD who reported a positive forensic history (F+; N=181), defined as self-reported arrest and/or incarceration, versus no forensic history (F-; N=1228). Analyses were conducted separately by gender, as determined *a priori*.

*Results:* Among both bipolar males and females, F+ respondents were significantly more likely to have alcohol use disorders (AUD), drug use disorders (DUD), antisocial personality disorder (ASPD), and history of suicide attempts, as compared to F- respondents. F+ respondents also reported significantly earlier onset of mania (mean onset age 22.1 vs. 26.4). There were no significant between-group differences in prevalence of rapid-cycling, mixed mania, or comorbid anxiety disorders. F+ respondents were significantly more likely to report BD-related hospital admissions and emergency department (ED) visits, and were more likely to report being treated with anti-manic medication. Gender differences within the F+ group included higher prevalence of AUD and ASPD among males, and higher prevalence of mixed mania and suicide attempts among females.

*Conclusion:* Findings from this epidemiological study converge with those of previous studies derived from clinical and forensic samples. Early age of onset, antisocial personality disorder, alcohol use disorders, and history of suicide attempt are associated with positive forensic history. Only half of F+ males reported BD-related service utilization, suggesting that BD may often go unrecognized in this population.

### No. 45D CAN PSYCHIATRY REDUCE THE CRIMINALIZATION OF THE SEVERELY MENTALLY ILL?

Elizabeth Walsh, M.D. *Institute of Psychiatry, Psychological Medicine, De Crespigny Park, Denmark Hill, London, SE5 8AF, United Kingdom*

#### SUMMARY:

It is accepted that those with severe mental illness are significantly more likely to commit violent crimes than others. The proportion of violent crime attributable to the severely mentally ill depends, however, on geographic location. This presentation will review risk factors and patterns for offending among those with psychotic disorders and examine the impact that psychiatry may have in reducing such offending. A comparison will be made between different models of service delivery in the United Kingdom and North America in an attempt to identify key elements that may contribute to reducing criminalisation of this vulnerable group. The role of psychiatry will

be considered as one of multiple agencies that collaborate to address this concerning societal problem. Original research findings will be presented along with research from the international evidence base. The presentation will balance the picture by presenting evidence that the severely mentally ill are a victimised group in society.

#### REFERENCES:

1. Quanbeck CD, Stone DC, McDermott BE, Boone K, Scott CL, Frye MA: Relationship between criminal arrest and community treatment history among patients with bipolar disorder. *Psychiatr Serv* 2005; 56 :847-52.
2. Quanbeck CD, Stone DS, McDermott BE, Boone K, Scott L and Frye MA. Relationship between Criminal Arrest and Community Treatment History Among Patients with Bipolar. *Psychiatric Services* 2005 Jul; 56 (7):847-852.
3. Quanbeck CD, Stone DC, McDermott BE, Boone K, Scott CL, Frye MA: Relationship between criminal arrest and community treatment history among patients with bipolar disorder.
4. Walsh E, Fahy T: violence in society. *British Medical Journal* 2002; 325; 1300.

### **SYMPOSIUM 46—APA/ APAL: ADDRESSING PSYCHIATRIC PATIENTS' NEEDS IN LATIN AMERICA APA Council on Global Psychiatry**

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participants should be able to assess the psychiatric patients needs in Latin America, design programs to address these needs, and build bridges between the APA and the APAL to assist and evaluate these programs and projects in a collaborative basis.

#### **No. 46A APA/APAL ADDRESSING PSYCHIATRIC PATIENTS NEEDS IN LATIN AMERICA**

Angel Valmaggia M.D. *Latin American Psychiatric Association, President, 1521 Artigas, Montevideo, 10973*

#### SUMMARY:

The role of the Latin American Psychiatric Association (APAL) will be addressed and delineated in this presentation with respect to the mental health delivery system that prevails in Latin America. Currently, there are over 35,000 psychiatrists in Latin America. Psychiatrists are nowadays seriously affected by managed care practices and the lack of financial support in the public psychiatric sector. Stigma and lack of governmental priorities still is rampant in most countries in Latin America. The interface between the Latin American Psychiatric Association (APAL) and the American Psychiatric Association is essential for the improvement of the mental health system throughout Latin America. Training and research exchanges and opportunities are of major relevance in this regard. This type of scientific exchanges will certainly lead to recommendations and initiatives that will have a positive impact in the future psychiatric care system that will prevail in the whole American continent.

#### **No. 46B FUTURE PERSPECTIVES WITH RESPECT TO APA/ APAL**

Cesar Mella Mejias, M.D. *Latin American Psychiatric Association, President Elect, Manuel Perdomo # 31 (Apartment #4), Trre Madrid Building, Santo Domingo, N/A, Dominican Republic*

#### SUMMARY:

The relationship between the American Psychiatric Association (APA) and the Latin American Psychiatric Association (APAL) has never been so promising as it is now with the second Hispanic President elected as the next President of the APA earlier this year. In Latin America there are more than 30 countries and over 35,000 psychiatrists. In the United States and Canada there are over 50,000 psychiatrists. While in North America we have the results of two industrialized nations with excellent psychiatric research and educational programs, in Latin America the research and educational funds have been rather limited. Besides, the demands for mental health services are immense in Latin America. In this presentation, we will explore ways in which we can collaborate in these two important areas. Additionally, we will also search for collaborative models in the mental health service delivery system that could be beneficial for the continent as a whole.

#### **No. 46C STRUCTURE OF STRATEGIC COLLABORATION BETWEEN THE APA AND APAL**

Edgard Belfort M.D. *University of Caracas, Psychiatry, Av. Libertador (Edificio Majestic), Piso 14 (#148), Caracas, 1050, Venezuela*

#### SUMMARY:

The number of psychiatrists is increasing everywhere in Latin America, as well as the fast changing knowledge in the field of psychiatry and mental health in the world.

In this sense, it will be address and discuss the best ways of evaluating and assessing the progress that can be secured regarding the strategic plans that could be implemented in the immediate future with respect to the collaboration between the APA and Latin American Psychiatric Association, APAL, in this regard.

#### **No. 46D IMPROVING MENTAL HEALTH CARE IN LATIN AMERICA: THE ROLE OF INTERNATIONAL COOPERATION**

Jose M. Caldas de Almeida, Ph.D. *Faculty of Medical Sciences, Lisbon, Mental Health Department, Calçada da Tapada, 155, Lisboa, 1300, Portugal*

#### SUMMARY:

Mental disorders represent a growing public health concern in Latin American and the Caribbean countries. Psychiatric and neurological conditions in 1990 were estimated to account for 8.8% of Disability Adjusted Life Years (DALYS). By the year 2020 the proportion of the contribution of neuropsychiatric conditions to overall disability is expected to rise to 20.6%. Due to the scientific advances made within the last decade, effective treatments and interventions are available today for most mental disorders. However, the majority of the persons suffering from mental disorders in Latin American countries do not have access to services and interventions currently available. A PAHO/WHO study shows that more than 80% of the Latin American countries have national mental health policies; however, the level of implementation of these policies is less than 25% in more than half of these countries. The enhancement of mental health planning and research capacities in Latin American countries is indispensable in order to overcome these constraints. In the last few years, international cooperation proved to be an important instrument to attain this objective. In this presentation, an overview of the main initiatives of international cooperation developed in Latin America in this domain is presented. Strategies used and results from these initiatives are discussed. Preliminary results show that initiatives involving international organizations, national agencies, universities

and scientific organizations can contribute to significant improvement of mental health care in Latin America.

#### REFERENCES:

1. Alarcon, R.: Los Mosaicos de la Esperanza. Reflexiones en torno a la Psiquiatria Latinoamericana. Asociacion Psiquiatrica de America Latina, Venezuela, 2003.
2. World Health Organization: Mental Health Policy, Plans and Programmes. Geneva, World Health Organization, 2005.

## SYMPOSIUM 47—HELPING RETURNING VETERANS: VA COMMUNITY COLLABORATIONS

### EDUCATIONAL OBJECTIVES:

At the conclusion of this Symposium, the participant should be able to: describe programs coordinating mental health services for returning veterans of Operation Enduring Freedom & Operation Iraqi Freedom (OEF/OIF) by VA, DoD, State/ community providers; recognize the relationship between these efforts and concepts of the President's New Freedom Commission: mental health as a part of all health care, the importance of patient/ family centered services

#### No. 47A

### THE PUBLIC HEALTH APPROACH IN DOD/VA OUTREACH TO SERVICE MEMBERS/VETERANS AND THEIR FAMILIES

Harold Kudler *Department of Veterans Affairs, Mental Health, Durham, NC, 27705*

#### SUMMARY:

Although only a minority of Service Members deployed to a combat area will develop a diagnosable mental health disorder, they and their families are likely to face important readjustment issues. The Department of Veterans Affairs (VA) is working closely with the Department of Defense (DoD) to develop innovative Returning Veterans Outreach, Education and Care (RVOEC) programs. These will follow a *public health model* rather than a traditional medical model. This public health approach must be integrated organically throughout DoD and VA (not just in medical settings but in training programs, peer groups, demobilization, family support programs, and other settings) to promote an understanding that reactions to severe stress are normal and that the success of the individual, the family, the community, and the mission depends on paying attention to them. Success depends on changing culture (including overcoming stigma) more than on simply administering treatment. Steps must be in phase with the evolving needs of Service Members and their families as they progress from recruitment through veteran status. Efforts must extend beyond the usual bricks and mortar of military and VA medical settings. This program must be driven by the needs of the individual and his/her family rather than the traditions of the systems working with them. It must better articulate the transition between DoD and VA. The emphasis must be on wellness rather than pathology; on training rather than treatment. The core principle is to help individuals and families maintain their balance under stress and, when necessary, regain their balance. Progress to date will be reported.

#### No. 47B

### A MODEL FOR INTERAGENCY COLLABORATIVE CARE OF STRESS DISORDERS RELATED TO MILITARY DEPLOYMENT

Miles McFall, Ph.D. *VA Puget Sound Health Care System, Mental Health Service, 1660 S. Columbian Way (116MHC), Seattle, WA, 98108*

#### SUMMARY:

Washington State has formed an interagency partnership for transitioning reserve component military service members from war zone deployment to civilian life. The foundation of this partnership was a regional Deployment Health Summit and an ensuing memo of understanding (MOU) that codifies the commitment of reserve components of the Department of Defense and 6 state, federal, and local agencies to implement a coordinated plan for outreach, education, and clinical service delivery to service members and their families. The multi-component outreach plan includes repeated educational mailings to all reserve members following war zone deployment and customer service presentations and health screening/triage at 26 weekend Family Activity Days scheduled throughout Washington State. The structure and process of this inter-agency collaboration will be discussed and the interagency MOU will be distributed. Also, data will be presented that summarizes the prevalence of mental health problems in troops during post-deployment health screening as well as rates of soldier participation in health and social services provided at Family Activity Day outreach events. Finally, a collaborative care model for delivering clinical services to veterans suffering from a spectrum of war zone stress-related disorders will be discussed. Key components of this model include: (a) a Deployment Health Clinic that integrates mental health services into a primary care setting; (b) use of an innovative, evidence-based pharmacological treatment (prazosin) for combat-related nightmares; (c) a comprehensive assessment battery for treatment planning, outcome monitoring, and program evaluation; (d) strategies for minimizing stigma-related barriers to accessing care; (e) coordination and integration of Vet Center, VA medical center, and community mental health service delivery assets; and (e) resource materials, including soldier education pamphlets distributed at outreach functions, VA/DoD practice-guideline compatible clinician manuals for brief treatments emphasizing wellness and recovery, and assessment methods for treatment planning and outcome monitoring.

#### No. 47C

### COLLABORATIVE INTERVENTIONS ADDRESSING SEXUAL TRAUMA IN FEMALE VETERANS POST-DEPLOYMENT

Marian I. Butterfield, M.D. *Durham VA Medical Center, Department of Psychiatry, 508 Fulton Street, 116A, Durham, NC, 27705, Jennifer L. Strauss, Ph.D.*

#### SUMMARY:

This talk will present the program and outreach efforts from recently funded VA Mid Atlantic Mental Illness Research Education and Clinical Center (MIRECC) is focused on deployment related mental illnesses addressing women veterans. Specifically, the MIRECC is working with the Durham VA Comprehensive Women's Health Center to develop and evaluate interventions to address this issue of MST and related PTSD in women veterans. Since the "War on Terror" was initiated in 2001, over 400,000 troops have been deployed, with over 15% being women. There are currently over 1.6 million women veterans in the United States, and over 36,000 in North Carolina alone. There are numerous issues women face in transitioning home post-deployment. One widely publicized issue for women is the sexual exploitation of by military personnel in Iraq. As deployed personnel return from the current conflict, the volume of military sexual trauma (MST) at VA facilities will likely increase. The deleterious health and mental health effects of sexual trauma are well established and include high rates of health service use post-assault. For many women, the impact of combat trauma in Iraq will likely be compounded in those who have also suffered military sexual assault and/or harassment. The mental health effects of MST include posttraumatic stress disorder (PTSD), depression, and substance abuse. Despite the placement of MST coordinator



positions at all VA facilities and mandated screening for MST, many veterans who screen positive for MST go untreated; some estimates are as high as 90%. This is in part because, many treatments are intensive, costly, and highly specialized, limiting the number of veterans who can be treated at a time. This talk will present an overview of outreach and intervention efforts to address this issue. Specifically, the development of a transportable, self-administered guided imagery for trauma (GIFT) that is being evaluated and could be rapidly disseminated within and outside the VA healthcare system to reach a large number of women veterans.

Target Audience: Psychiatrists, Mental Health Clinicians, and Researchers

#### No. 47D THE OHIO CARES INITIATIVE

Col. Terry C. Washam, L.I.S.W. *U.S. Army, Office of the Surgeon General, 35422 Emory Drive, Avon, OH, 44011*

##### SUMMARY:

The Global War on Terror (GWOT) to include our military engagements in Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF) is confronting DoD, the VA and the community at-large with new challenges in responding to the deployment-related stress concerns Active Component (AC) and the Reserve Component (RC) service members and their families. The stigma associated with seeking behavioral health care further compounds the situation. The challenges with the RC, which make-up between 30%-40% of the forces in OIF/OEF, are especially demanding due to their wide geographical distribution, the infrequency at which the Units hold battle drill assemblies and the mobilization of service members from multiple units to meet mission requirements.

The Ohio Adjutant General, MG Greg Wyatt, with the support of the Governor, State of Ohio, formed an OIF/OEF Workgroup in October 2004 to develop and implement plans to address these challenges among Ohio National Guard Bureau service members and their families. The Workgroup developed into the OHIO CARES, a statewide initiative that provides outreach, education, support and referral services to service members and their families throughout all stages of the deployment cycle.

##### REFERENCES:

1. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL: Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *NEJM* 2004; 351:13-22.
2. Hoge CW, Castro CA, Messer SC, et al. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *N Engl J Med*; 351: 13-22.
3. Butterfield MI, Becker ME, Marx CE. PTSD in women: current concepts and treatment. *Current Psychiatry Reports*. 4(2):474-485, 2002.
4. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine* 351:13-22.

### SYMPOSIUM 48—SUBSTANCE USE DISORDERS: PLANNING A RESEARCH AGENDA FOR DSM-V Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

##### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant will possess a clearer appreciation of the distinctions between DSM and ICD

substance use disorder diagnoses and should be able to describe future directions in nosology-related substance use disorders research

#### No. 48A ADOLESCENTS AND SUBSTANCE RELATED DISORDERS: RESEARCH AGENDA TO GUIDE DECISIONS ON DSM-V

Thomas J. Crowley, M.D. *Univ CO Med School C-268-35, Psychiatry, 4200 E 9th Ave, Box C268-35, Denver, CO, 80262*

##### SUMMARY:

This presentation considers whether specific criteria for substance use disorders are needed for adolescents. The author notes that the current criteria for substance use disorders generally work well in adolescents, showing validity (i.e., clearly discriminating patients from controls); validly grouping adolescents based on severity; and having good interrater reliability. He suggests six areas for adolescent-relevant studies designed to improve their usefulness: 1) research to determine whether cannabis withdrawal should be added to DSM-V; 2) research into the relationship of substance use disorders and disruptive behavior disorders; 3) research into the possibility of rephrasing some of the substance abuse criteria to increase their reliability and validity in adolescents; 4) research to determine whether earlier onset of substance use disorders between age 14-18 is a severity marker predicting worse outcome; 5) research to determine whether substance use diagnoses in adolescents should take into account the total number of substances and number of diagnostic criteria met; and 6) research to develop procedures for developing classifications for new substances that emerge on the market after publication of DSM-V.

#### No. 48B METHODS FOR DSM-V RESEARCH WORK GROUPS TO ADDRESS KEY DIAGNOSTIC ISSUES FOR SUBSTANCE USE DISORDERS

Linda B. Cottler, Ph.D. *Washington University School of Medicine, Psychiatry, 40 N. Kingshighway, Suite 4, St. Louis, MO, 63108*

##### SUMMARY:

As with their predecessors, the DSM V and ICD 11 committees will turn to relevant empirical data as the foundation for addressing the key nosological issues when making decisions for revisions. Datasets will include public use datasets and projects funded individually by NIDA and NIAAA. However, not all datasets will be informative to the Workgroups on key issues due to their limited scope, their lack of generalizability and other issues. This presentation focuses on ten key issues that make datasets worthy for nosological analyses. They include: using assessments that are true to the nomenclature and nosology; use of assessments that are flexible regarding potential rearrangements of criteria; assessments that include all substances; use of assessments that collect older versions of criteria simultaneous with newer versions; use of full rather than screening versions; use of samples that are generalizable; transparent diagnostic algorithms; mixed methods for data collection, including biological, and other corroborating data; reliable and valid assessments; and datasets that stretch the limits for new discoveries. Examples will be presented for each characteristic on ways it could inform the revision process, as well as how the guidelines could be utilized for improving the integrity of future drug abuse studies in general.

No. 48C  
**SUBSTANCE USE DISORDER CO-MORBIDITY AND DSM-V**

Deborah S. Hasin, Ph.D. *Columbia University, Department of Psychiatry, 1051 Riverside Drive, Box 123, New York, NY, 10032*

**SUMMARY:**

A high level of concurrent comorbidity between substance use disorders and other psychiatric disorders is well-established in clinical and general population samples. Understanding this comorbidity has been complicated by the challenge of differentiating between independent symptoms of a psychiatric disorder and the symptoms of intoxication and withdrawal that can mimic psychiatric symptoms. DSM-IV offered considerably improved clarity over DSM-III and DSM-III-R in this regard, with options to denote psychiatric disorders or syndromes occurring in substance users as (1) primary/independent (temporarily distant from substance intoxication or withdrawal), (2) substance-induced (symptoms occur only during periods of substance use but are *in excess of* expected intoxication or withdrawal effects) or (3) expected intoxication or withdrawal effects as denoted by substance-specific lists of intoxication and withdrawal criteria in DSM-IV. Since publication of DSM-IV, information on the reliability, validity and clinical relevance of the DSM-IV approach has emerged from clinical and general population samples. These studies and their findings are summarized in the presentation. Considerable support for the DSM-IV approach is found, but a number of questions remain, highlighting the need for additional studies to inform DSM-V. These studies could include genetics, imaging, and treatment response studies as well as further epidemiologic investigation.

No. 48D  
**WHAT CAN HUMAN BRAIN IMAGING TELL US ABOUT ADDICTION?**

Anna R. Childress, M.D. *University of Pennsylvania, Department of Psychiatry, 3900 Chestnut Street, Philadelphia, PA, 19104*

**SUMMARY:**

The promise of brain measures in the psychiatric disorders, including the addictions, will not be fully realized within the time frame of DSM V. At this point, there is no specific imaging test to diagnose addiction, or any other psychiatric disorder. There are, however, a rapidly accruing number of brain findings that offer an intriguing window onto the pathophysiology of addiction. Most individuals exposed to rewarding drugs of abuse do not become addicted. Those who do might have a dysfunction in meso-cortico-limbic circuitry (i.e., "GO" systems) involved in seeking reward and/or a dysfunction in prefrontal cortical systems ("STOP") that allow individuals to pause and weigh the consequences of our actions. Evidence for problems in "GO" systems include low D2 dopamine receptors seen in neuroimaging studies of chronic cocaine users and blunted dopamine release to a stimulant challenge. Problems (hypodense gray matter; hypometabolism) within the prefrontal "STOP" circuitry may help explain substance abusers' poor decision-making, poor inhibition, and increased risk-taking. Studying at-risk individuals early in the course (e.g., adolescents) will be crucial for determining which of the accruing brain differences pre-date / pre-dispose addiction, and/or are a consequence of repeated exposure to the drug of abuse.

**REFERENCES:**

1. Li T-K, Hewitt BG, Grant BF: Alcohol use disorders and mood disorders: a National Institute on Alcohol Abuse and Alcoholism perspective. *Biol Psychiatry* 56:718-720, 2004.

2. Robins LN and Cottler LB. Making a structured psychiatric diagnostic interview faithful to the nomenclature. *Am J Epidemiology* 160:808-813, 2004.
3. Hasin D, Samet S, Nunes E, Meydan J, Matseoane K, Waxman R: Diagnosis of Comorbid Disorders in Substance Users: Psychiatric Research Interview for Substance and Mental Disorders (PRISM-IV). In press, *Am J Psychiatry*.
4. Anna Rose Childress AR., Mozley PD, McElgin W, Fitzgerald J, Reivich M, O'Brien CP: Limbic Activation During Cue-Induced Cocaine Craving. *Am J Psychiatry* 1983, 156:11-18.

**SYMPOSIUM 49—THE USE OF ATYPICAL ANTIPSYCHOTICS IN ELDERLY PATIENTS WITH DEMENTIA: WHAT NEXT?**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to recognize the benefits, risks, side-effects, mechanisms of action, and legal aspects of prescribing atypical antipsychotics to elderly patients with dementia and behavioral disorders as well as alternative interventions in the light of the recent FDA warning about increased mortality associated with that off-label use

No. 49A  
**USE OF ANTIPSYCHOTICS IN ELDERLY PATIENTS WITH DEMENTIA: WHAT'S NEXT?**

Soo Borson, M.D., *University of Washington School of Medicine, Department of Psychiatry, Seattle, WA, 98195*

**SUMMARY:**

Antipsychotic drugs continue to be used frequently to treat psychosis, agitation, and aggression in elderly patients with dementia. Randomized, placebo-controlled trials are the principal source of data on efficacy and safety of these agents, yet results of these trials provide less than satisfactory evidence on which to base clinical practice. Effect sizes are generally small, symptomatic benefits are limited, and side effects are common. Recent FDA black box warnings about the use of atypical antipsychotics in dementia patients emphasize increased risk of death in treated patient groups. In this presentation, the limitations in study design, patient populations included, medications evaluated, outcomes assessed, and indications for treatment will be critically discussed with the intent of supporting clinicians in choosing when and how to use antipsychotics well in management of dementia.

No. 49B  
**PHARMACOLOGICAL STRATEGIES FOR THE MANAGEMENT OF BEHAVIOR DISORDERS IN DEMENTIA**

Bruce G. Pollock *University of Toronto, The Rotman Research Institute, 3560 Bathurst St., Rotman Research Inst, Toronto, ON, M6A2E1, Canada*

**SUMMARY:**

At the end of the presentation, the participant should be able to recognize the neurochemical selectivity, pharmacokinetics, pharmacodynamics, and the effects of typical and atypical antipsychotics commonly used for the management of behavioral disturbances associated with dementia in older individuals, the merits and demerits of using alternative medications, such as citalopram or antiepileptics, and the ground rules for the selection of the appropriate medication in a given patient.

No. 49C

**THINKING OUTSIDE THE BLACK BOX: RISK MANAGEMENT FOR USING ATYPICAL ANTIPSYCHOTIC MEDICATIONS WITH THE ELDERLY**

Patricia R. Recupero, M.D. *Brown Univ/Butler Hospital, Department of Psychiatry, 345 Blackstone Boulevard, Providence, RI, 02906*

**SUMMARY:**

The US Food and Drug Administration (FDA) recently applied a "Black Box Warning" (BBW) to the use of atypical antipsychotic medications (AA) in the elderly. The BBW notes that elderly patients are at an increased risk of death, with most dying from cardiovascular or infectious causes. Clinicians are using these medications for the treatment of behavioral disturbances in elderly patients with dementia and aggressive or agitated behaviors. The use of AA's for this indication is an off-label use, meaning that the FDA did not approve the use of AA for patients with dementia. A BBW is the highest level of warning given to consumers and physicians concerning the use of particular medications.

Given that the BBW exists and that elderly patients benefit from AA, what is the psychiatrist to do? This paper will present risk management techniques for the use of AA in the elderly. It will focus on the informed consent issues associated to the use of off-label or BBW medications in general and then on the particular problems associated with informed consent in the elderly patient with dementia. Other strategies related to working with families, documentation and collaboration with other professionals will be reviewed.

**REFERENCES:**

1. Sink KM, Holden KF, Yaffe K: Pharmacological Treatment of Neuropsychiatric Symptoms of Dementia: A Review of the Evidence. *JAMA* 2005; 293: 596-608.
2. Pollock BG, Mulsant BH, Rosen J, et al.: Comparison of citalopram, perphenazine, and placebo for the acute treatment of psychosis and behavioral disturbances in hospitalized, demented patients. *Am J Psychiatry* 2002; 159(3):460-5 et al.
3. Beck, JM, Azari ED: FDA, off-label use, and informed consent: Debunking myths and misconceptions. *Food and Drug Law J* 53:71-104, 1998.

**SYMPOSIUM 50—PREVENTION OF COMMON MENTAL DISORDERS: IS IT TIME TO START?****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participants should be able to recognize the potential for prevention of common mental disorders, to be acquainted with ways to identify at-risk populations, and with the evidence base and cost-effectiveness of currently available interventions.

No. 50A

**COST-EFFECTIVENESS OF PREVENTING DEPRESSION IN PRIMARY CARE PATIENTS: RANDOMIZED TRIAL**

Filip E. Smit, M.S.C. *Trimbos Institute Netherlands Institute of Mental Health and Addiction, Prevention, Da Costakade, 45, Utrecht, 3500 AS, The Netherlands*

**SUMMARY:**

Background: Little is known about the cost-effectiveness of preventing mental disorders.

AIMS. To study the cost-effectiveness of care as usual (CAU) plus minimal contact psychotherapy (MCP) relative to CAU alone in preventing depressive disorder.

Method: A cost-effectiveness analysis was conducted alongside a randomized clinical trial. Primary care patients with subthreshold depression were assigned to MCP (N=107) or to CAU (N=109).

Results: Primary care patients with subthreshold depression benefit from MCP as it reduces the risk of developing a full-blown depressive disorder from 18% to 12%. In addition, MCP has a 70% probability of being more cost-effective than CAU. A sensitivity analysis indicated the robustness of these results.

Conclusion: Over one year MCP improved outcomes against lower costs. Therefore adjunctive MCP dominates CAU alone in terms of cost-effectiveness.

No. 50B

**PREVENTION OF NEW CASES OF MENTAL DISORDERS: PROBLEMS AND SOLUTIONS**

Pim Cuijpers, Prof. Dr. *Vrije Universiteit Amsterdam, Head of the Department of Clinical Psychology, Van der Boerhorststraat 1, 1081 BT, Amsterdam, Netherlands Antilles*

**SUMMARY:**

**Background.** In the past decade, several randomised studies have examined the effects of preventive interventions on the incidence of depressive disorders. These studies show that indicated prevention (with subjects who already have some symptoms but no DSM-disorder) can reduce the incidence of major depression with about 30%. In one randomised trial, we examined the one-year effects of a preventive intervention in primary care patients with subthreshold depression (Willemse et al., *British Journal of Psychiatry*, 2004). In this symposium, we will present the effects of the intervention after two-years

**Methods.** We conducted a randomised trial in primary care, in which patients screened for sub-threshold depression were randomly assigned to minimal-contact psychotherapy (contact n=107) or to usual care (n=109).

**Results.** One year after baseline, the incidence of major depressive disorder was found to be significantly lower in the significantly lower in the psychotherapy group (12%) than in those receiving usual care (18%). Small but significant effects were also found on depressive symptoms and on aspects of health-related quality of life. The effects after two-years are currently being analysed and will be presented at the symposium.

**Conclusions.** Primary care patients with sub-threshold depression can benefit from minimal-contact psychotherapy.

No. 50C

**PREVENTION OF LATE-LIFE DEPRESSION; DO WE KNOW WHERE TO BEGIN?**

Robert A. Schoevers, Ph.D. *Mentrum Mental Health Care, Program Director, 2e constantijn Huijgensstraat 37, Amsterdam, 1054 AG, The Netherlands*, Filip Smit, M.S.C., Dorly Deeg, Prof. Dr., Pim Cuijpers, Prof. Dr., Jack Dekker, Prof. Dr., Willem Van Tilburg, Prof. Dr., Aartjan Beekman, Prof. Dr.

**SUMMARY:**

Context: Depression is a highly prevalent disorder causing a large amount of non-fatal disease burden. Even optimal treatment would reduce this burden by only 1/3. In older persons, depression has a predominantly chronic course. It is of great interest to investigate possible strategies to prevent the onset of late-life depression in primary care.

**Objective:** To compare two models for selective (persons at elevated risk) and indicated prevention (persons with subsyndromal symptoms of depression), and determine which is the optimal strategy for prevention of late-life depression.

**Design, setting and participants:** Depression onset was assessed at three-year follow-up in two large community studies in the Netherlands, using GMS-AGECAT or CES-D respectively, in randomly selected cohorts of non-depressed and non-demented older community-living persons. A comprehensive set of risk factors that can easily be identified in primary care was available.

**Main outcome measures:** The association of risk factors with depression incidence was expressed in terms of Absolute and Relative Risk estimates, Numbers-Needed-to-be-Treated, and Population Attributable Fraction. Prevention models are also identified using Classification And Regression Tree (CART) analyses.

**Results:** In the indicated prevention model, subsyndromal symptoms of depression were associated with a risk of almost 40% of developing depression, an NNT of 5.8, and accounted for 24.6% of new cases. Adding more risk factors raised the AR up to 49.3%, with a lower NNT (3.2), but also lower AF values. In the selective prevention model, loss of spouse showed the highest risk (AR 37%, NNT 5.3, AF 8.2%), a risk that became even higher if subjects also had a chronic illness. Overall, the AF values in the indicated model were higher, identifying more persons at risk.

**Conclusions:** Considering the costs and benefits of both models in the context of the availability of evidence-based preventative interventions, indicated prevention aimed at elderly persons with depressive symptoms is the preferred option. The exclusive focus on treatment of depressive disorder should be readdressed. A new approach in public mental health is needed, with a stronger emphasis on preventive psychiatry.

## No. 50D EVIDENCE-BASED PREVENTION OF COMMON MENTAL DISORDERS

Aartjan T.F. Beekman MD, PHD *Vrije Universiteit, Psychiatry, Amsterdam*

### SUMMARY:

**Background.** Efforts to prevent Psychiatric disorders are as old as psychiatry itself. However, a firm theoretical and empirical basis for evidence-based policy in preventative psychiatry is lacking. In a public domain characterised by fierce competition for funding and ever increasing demand for evidence to justify delivery of services, there is a dire need for an evidence base for preventative psychiatry. During the past decades, epidemiological studies demonstrating the public health significance of mental disorders have been carried out throughout the world. Although necessary, epidemiological data are not sufficient. For psychiatrists to be able to fruitfully collaborate with consumers, service providers and policy makers in constructing effective prevention programmes in psychiatry, we need to be able to integrate data from epidemiology, pathophysiology, clinical trials and health economics.

**Aims:** To provide an overview and integrative framework of the evidence necessary to further preventative psychiatry

**Method:** Integration of theoretical models for prevention (Mrazek and Hagerty) and empirical data concerning the epidemiology, pathophysiology, clinical/prevention trials and health economics of common mental disorders.

**Results:** A framework to guide both the conceptualisation of preventative psychiatry and the selection of the areas in which prevention of common mental disorders may be most fruitful. This framework will be further specified in the following presentations. **Conclusion:** Given the enormous burden of illness posed by common mental disorders, the high influx of new cases each year and fact that treatment may at best alleviate a maximum of 40% of the burden

of illness, investing in prevention should be a high priority. An effective prevention policy should include a time-and-place tailored mix of universal, selective and indicated prevention.

### REFERENCES:

1. Smit F, Willemse G, Koopmanschap M, Onrust S, Cuijpers P, Beekman A: Cost-effectiveness of preventing depression in primary care patients: randomised trial. *Brit J Psychiatry*, in press.
2. Cuijpers P: Examining the effects of prevention programs on the incidence of new cases of mental disorders: The lack of statistical power. *Am J Psychiatr* 2003; 160: 1385-1391.
3. Schoevers RA, Smit F, Deeg DJH, Cuijpers P, Dekker J, Van Tilburg W, Beekman ATF. PREVENTION OF LATE-LIFE DEPRESSION IN PRIMARY CARE; DO WE KNOW WHERE TO BEGIN? *Am.J. Psychiatry*, IN PRESS.
4. Mrazek PJ & Haggerty RJ (1994) Reducing risks for mental disorders: frontiers for preventative intervention research. National Academy Press, Washington.

## SYMPOSIUM 51—HOW TO LAUNCH A SUCCESSFUL PRIVATE PRACTICE: PART 3

### EDUCATIONAL OBJECTIVES:

1. Develop your own individual strategy for launching a successful private practice while maximizing your strengths and interests;
2. Learn techniques that will give you the necessary edge to succeed in a competitive marketplace;
3. Learn to balance the functions of manager, technician, and entrepreneur in a small business.

## No. 51A PERSONAL FACTORS LEADING TO A SUCCESSFUL PRIVATE PRACTICE

William E. Callahan, Jr., M.D. *120 Vantis, Suite 540, Aliso Viejo, CA, 92656*

### SUMMARY:

Dr. Callahan will discuss the biggest risks for failure, and individual issues that must be accounted for if you are to be successful. Ways to avoid being pulled into unethical behavior are addressed. Having an attorney review your office contracts and avoiding getting taken advantage of in the business and professional world will be detailed. Broad issues for professional success will be covered, including: recognizing your own professional value; developing a business plan; and keeping your financial expectations realistic.

## No. 51B OFFICE LOCATION AND DESIGN FOR EFFICIENCY AND SUCCESS

Keith W. Young, M.D. *10780 Santa Monica Blvd., Suite 250, Los Angeles, CA, 90025-4749*

### SUMMARY:

Dr. Young will discuss the details of office location and design. He will provide a checklist of features often not thought about that you will want to consider. Factors that are and are not important in where you locate, and tips on how to make that decision are discussed. References to differences based on rural versus urban will also be addressed. The impact on the office on the success of the practice, as well as how well (or not) it represents you will be presented.

## No. 51C

**STREAMLINING OVERHEAD AND MANAGING YOUR BUSINESS IN PRIVATE PRACTICE**

Keith W. Young, M.D. 10780 Santa Monica Blvd., Suite 250, Los Angeles, CA, 90025-4749

**SUMMARY:**

Dr. Young will discuss streamlining all aspects of your practice to limit overhead while maximizing earnings and quality. Tips about minimizing personal and office expenses will be offered. Setting fees, billing, scheduling appointments, missed appointments and other areas are covered.

## No. 51D

**MARKETING YOUR UNIQUE PRIVATE PRACTICE**

William E. Callahan, Jr., M.D. 120 Vantis, Suite 540, Aliso Viejo, CA, 92656

**SUMMARY:**

Dr. Callahan will highlight how to get the right patients through the door. Concepts of branding so that you are distinguishable from the rest of your peers are examined. Marketing also requires persistent visibility and developing name recognition within a region, and then within segments of that region that you are best equipped to serve.

Dr. Callahan has developed an extensive list of different ideas and ways to do this, which you can tailor to your own area and strengths. The focus in the start-up phase of practice is on methods that will cost you time, but not money, since time is usually more available than money in this phase.

**REFERENCES:**

1. Logsdon, L: Establishing a Psychiatric Private Practice, Washington, D.C. American Psychiatric Press, Inc., 1985.
2. Molloy, Patrick: Entering the Practice of Psychiatry: A New Physician's Planning Guide, Roerig and Residents, 1996.
3. Gerber, Michael E., The E-Myth Revisited: Why Most Small Businesses Don't Work and What to Do About it, Harperbusiness, ISBN 0887307280, April 1995.
4. Practice Management for Early Career Psychiatrists, APA Office of Healthcare Systems and Financing, 1998.

**SYMPOSIUM 52—CHOOSING THE RIGHT TREATMENT FOR SUBSTANCE ABUSE****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant will be able to know the best methods, both pharmacologic and behavioral, for treating the major addictions to illicit drugs and prescription opioids. "

## No. 52A

**CHOOSING THE RIGHT TREATMENT FOR COCAINE DEPENDENCE**

Adam M. Bisaga Columbia University, Department of Psychiatry, na, New York, NY, 10032

**SUMMARY:**

Cocaine abuse and dependence continues to be a severe health problem that is difficult to treat. A multitude of pharmacological treatments have been tested over the past 25 years. Antidepressants, with desipramine most studied, have yielded inconsistent results. Medications that affect dopaminergic neurotransmission, including dopamine receptor agonists, dopamine transporter inhibitors, and

dopamine receptor blockers, have also not been consistently successful. Recently studied medications, including disulfiram, d-amphetamine, tiagabine, and topiramate, are more promising.

Current research interests include the use of medications that affect the neurotransmission of excitatory and inhibitory amino acids, and the function of the HPA axis. Strategies to prevent cocaine from entering the brain are also being developed and initial results with a "cocaine vaccine" are promising. Another new approach in cocaine treatment trials involves the induction of initial abstinence using behavioral methods with subsequent use of medications that may extend abstinence and prevent relapse.

Despite the absence of reliable pharmacotherapy, there are several effective psychosocial treatment approaches that should be a part of every treatment effort. A combination of pharmacological and behavioral interventions that is targeted to a particular treatment stage will likely be required for patients to achieve and maintain abstinence. Although no single treatment is currently suggested, several treatment combination approaches will be illustrated.

## No. 52B

**TREATMENT OF COMORBID CONDITIONS**

Frances R. Levin, M.D. Columbia University, State Psychiatric Inst., Department of Psychiatry, 1051 Riverside Drive, Unit 66, Unit 66, New York, NY, 10032

**SUMMARY:**

Evidence for a link between psychiatric and substance use disorders is strong and converging. Epidemiologic studies have demonstrated that substance abuse is over-represented among individuals with psychiatric conditions. Similarly, numerous prevalence studies among substance abusers seeking treatment have found that the majority of patients have at least one comorbid psychiatric disorder. These psychiatric disorders may include major depression, bipolar disorder, anxiety disorders, attention-deficit hyperactivity disorder, and schizophrenia/schizo-affective illness. Although there are established pharmacologic and nonpharmacologic approaches for each of these psychiatric conditions in non-substance abusing patients, the efficacy of these approaches in substance-abusing patients is not well established. Several questions will be addressed in this presentation: 1) what are the appropriate pharmacologic treatment approaches for specific dually disordered patients? 2) Should medications with abuse potential be avoided? 3) Is substance use reduced if the psychiatric comorbid condition is treated? 4) What are some possible modifications of currently available nonpharmacologic strategies that might be used for various diagnosed groups? Although there are no definite answers, clinical guidelines will be offered.

## No. 52C

**MARIJUANA AND CLUB DRUGS: CUTTING EDGE DEVELOPMENTS, NEW AND POTENTIAL TREATMENTS**

David M. McDowell, M.D. Columbia University, Department of Psychiatry, 1051 Riverside Drive, New York, NY, 10032

**SUMMARY:**

Marijuana is the most commonly used substance of abuse in the United States. In addition the use of "club drugs," in particular MDMA, Ketamine and GHB are increasing. Contrary to public perception, "Club drugs" cause real and substantial morbidity and mortality along. In addition, chronic and heavy use of marijuana carries with it substantial morbidity as well as the risk of dependence and withdrawal. These issues have far reaching implications for substance abuse treatment and psychiatric treatment both now and in the future. Pharmacological interventions for marijuana dependence

have included mood stabilizers and medication focused on withdrawal symptoms. Treatment strategies for these conditions have focused on prevention measures and psychosocial interventions. These conditions are not as well studied as other substance abuse conditions. In recent years a great deal of work has been completed concerning the basic mechanisms of actions, pharmacology and neuro-physiology of marijuana and its endogenous ligand anandamide. Given the increasing knowledge about marijuana, new and potential treatments are being studied and even more can be theorized. Especially promising are various pharmacological interventions for marijuana as well as for co-morbid conditions. This portion of the seminar will focus on the latest developments in the study of marijuana and club drugs as well as treatment strategies. New and potential pharmacological treatments will be emphasized.

#### No. 52D

### BEHAVIORAL TREATMENTS FOR SUBSTANCE DEPENDENCE AND INTEGRATING BEHAVIORAL THERAPY WITH MEDICATION

Edward V. Nunes, M.D. *NYS Psychiatric Institute, Columbia University, Department of Psychiatry, 1051 Riverside Drive, New York, NY, 10032*

#### SUMMARY:

Psychosocial treatment is the cornerstone of treatment for addictions, either alone or in combination with medications. Several types of psychotherapeutic interventions have been developed and studied, including cognitive behavioral skill-building approaches (e.g., relapse prevention, community reinforcement approach, contingency management, motivational enhancement therapy, and 12-Step facilitation). Such interventions have served as means of achieving abstinence, encouraging lifestyle change, and promoting compliance with medications. Despite encouraging findings in treatment outcome research, many challenges remain. The behavioral interventions are not always successful in securing longer term abstinence and commitment to change. Transferring and integrating such treatment models from research to community treatment settings remains a complex task. An overview of these models will be provided, as well as their known efficacy in working with different substances of choice. Obstacles encountered in the delivery of these approaches, the clinical implication of integrating such models, and the efforts thus far to generalize research findings to community settings will be addressed.

#### No. 52E

### CHOOSING THE RIGHT TREATMENT FOR OPIOID DEPENDENCE

Herbert D. Kleber, M.D. *Columbia University, Department of Substance Abuse, 1051 Riverside Drive, Unit 66, New York, NY, 10032*

#### SUMMARY:

While there are about 1 million heroin addicts and 2-3 times more prescription opioid abusers, there are effective treatments but few use them. The agonist methadone decreases opiate use and improves psychosocial outcome but presents problems such as high rates of concurrent alcohol and cocaine abuse, need for frequent clinic visits, and difficulty in withdrawal. The partial agonist buprenorphine has easier withdrawal, a ceiling effect on respiratory depression, decreased diversion potential and office-based prescribing. This opens the possibility of mainstreaming addiction treatment and attracting individuals who have not sought help. The antagonist naltrexone, while blocking opiate use and decreasing alcohol abuse, has low rates of acceptance and high dropout rates. An injectable form of naltrexone, which can block heroin for up to 4 weeks, should be on the market in 2006. A naltrexone implant, which may block for 3-

12 months, a 1-month buprenorphine injection, and a 6-month implant are all being tested. New approaches to opiate detoxification, including lofexidine, rapid detoxification using buprenorphine and naltrexone, and the use of NMDA antagonists hold out hope for less discomfort and higher completion rates. In contrast, recent studies suggest the risk/benefit ratio for anesthesia rapid detoxification methods do not justify their use. The paper discusses using available medications in office-based settings including patient selection, treatment, and safety issues.

#### REFERENCES:

1. Gorelick DA, Gardner EL, Xi ZX (2004) Agents in Development for the management of cocaine abuse. *Drugs*, 64, 1547-73.
2. Levin FR, Evans, SM, Kleber, HD: Treatment of substance abusers with adult ADHD: practical guidelines for treatment. *Psychiatric Services* 50: 1001-1003.
3. Budney, A.J. Hughes, J.R. et al. Marijuana Abstinence Effects in Marijuana Smokers Maintained in their Home Environment. 2001, *Archives of Gen Psychiatry* 58: 917-924.
4. Rothenberg JL, Sullivan MA, Church SH, Seracini A, Collins E, Kleber HD, Nunes EV. Behavioral naltrexone therapy: an integrated treatment for opiate dependence. *J Subst Abuse Treat.* 2002 Dec;23(4):351-60.
5. Kleber, H.D. Pharmacologic Treatments for Heroin and Cocaine Dependence. *The American Journal on Addictions*, 12:S5-S18. 2003.

### SYMPOSIUM 53—STRESS-INDUCED AND FEAR CIRCUITRY DISORDERS: PLANNING THE RESEARCH AGENDA FOR DSM-V

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant will appreciate the contributions of evidence derived from the areas of descriptive, cognitive, neurophysiologic, neurochemical, epidemiologic and treatment research to a new conceptualization of selected anxiety disorders.

#### No. 53A

### THE ROLE OF COGNITION IN STRESS-INDUCED AND FEAR CIRCUITRY DISORDERS

Edna B. Foa, Ph.D. *University of Pennsylvania, Department of Psychiatry, 3535 Market St, 6th floor, Philadelphia, PA, 19104*, Jonathan D. Huppert, Ph.D., Shawn Cahill, Ph.D.

#### SUMMARY:

Numerous studies evaluated the role of cognition in the anxiety disorders, using multiple methodologies and research designs to examine different aspects of cognition in each disorder. In this presentation we will provide an overview of data from these studies, which demonstrate the presence of a relationship between cognition and the anxiety disorders in general and a causal relationship in particular. We begin with a working definition of cognition and cognitive biases. Next, we discuss some basic assumptions that guide the theoretical and empirical literature on cognitions and psychopathology. We then review empirical evidence for a causal relationship between cognitive biases in panic disorder (PD), posttraumatic stress disorder (PTSD), social anxiety disorder (SAD), and specific phobia (SPH). In this review we will summarize results from cross sectional studies, longitudinal studies, treatment studies, and experimental manipulations. We conclude with a summary of what we know and with a discussion of future direction.

No. 53B

**OVERLAP AND DISTINCTIVENESS AMONG STRESS-INDUCED AND FEAR-CIRCUITRY DISORDERS**Abby Fyer, M.D. *Columbia University, NYSPI Unit 82, 1051 Riverside Drive, New York, NY, 10032***SUMMARY:**

This presentation will review genetic and epidemiological data addressing the question of whether anxiety disorders form a cohesive group distinct from other psychiatric disorders. Traditional descriptive validity measures (e.g., age at onset, gender distribution, course, treatment response, comorbidity, factor analyses) suggest a combination of overlap and distinctness both among DSM-IV anxiety disorders and between anxiety and affective disorders. Studies of heritability show a similar pattern. All anxiety disorders demonstrate moderate heritability, but twin and family studies provide evidence for both shared (i.e., a common "proneness" to develop anxiety disorder that is inherited) as well as specific genetic and environmental contributions. These data, consistent with findings in other areas of medicine, suggest a more complicated inter-relationship between potential etiologic factors (e.g. genetics, environment, developmental course) and current clinical syndrome definitions. Possible strategies for integrating these observations into the DSM-V anxiety disorder section will be discussed.

No. 53C

**NEUROCHEMISTRY/NEUROENDOCRINE SIGNALS (AND NOISE) IN ANXIETY DISORDERS**Rachel Yehuda, M.D. *Mount Sinai School of Medicine, Department of Psychiatry, 130 West Kingsbridge Road, Bronx, NY, 10471***SUMMARY:**

This presentation will discuss the status of the literature on neurochemical and neuroendocrine markers of anxiety disorders for the purpose of determining whether our knowledge is sufficiently mature to consider using such markers to aid in the diagnosis, or more importantly, the differential diagnosis, of anxiety disorders. Numerous studies have found evidence for alterations in neurochemical and neuroendocrine systems in stress, particularly when challenge strategies are used; however, the lack of uniform consistency in these studies, and in some cases, the directionality of the observations (i.e., with respect to differences from hypothesized effects associated with stress), suggest that it is premature to use these neurochemical markers in the service of diagnosis. The presentation will also consider why there is no clear neurochemical/neuroendocrine signal in anxiety disorders that support the 'fear-stress' diagnostic grouping by focusing on both methodologic (e.g., limitations of peripheral measures) and conceptual (e.g., faulty diagnostic criteria; to flawed formulations about the nature of anxiety disorders and their relationship with stress and fear issues). The contemporary challenge is to use biologic data in a manner that preserves the integrity of theories that give rise to our hypotheses as well as clinical reality; we will illustrate this process specifically using biologic findings with respect to PTSD.

No. 53D

**SEROTONIN, THE HIPPOCAMPUS, AND EMOTIONAL BEHAVIOR**Rene Hen, M.D. *Columbia University, Neurobiology, 722 West 168th St, Room 767A, New York, NY, 10032***SUMMARY:**

Serotonin is implicated in mood regulation, and drugs acting via the serotonergic system are effective in treating anxiety and depression. Specifically, agonists of the serotonin<sub>1A</sub> receptor have anxiolytic properties, and knockout mice lacking this receptor show increased anxiety-like behavior. We have used a tissue-specific, conditional rescue strategy to show that expression of the serotonin<sub>1A</sub> receptor primarily in the hippocampus and cortex, but not in the raphe nuclei, is sufficient to rescue the behavioral phenotype of the knockout mice. Furthermore, using the conditional nature of these transgenic mice, we suggest that receptor expression during the early postnatal period, but not in the adult, are necessary for this behavioral rescue. These findings show that postnatal developmental processes help to establish adult anxiety-like behavior. In addition, the normal role of the serotonin<sub>1A</sub> receptor during development may be different from its function when this receptor is activated by therapeutic intervention in adulthood. We have also investigated whether the 5-HT<sub>1A</sub> receptor is involved in the antidepressant and anxiolytic effects of selective serotonin reuptake inhibitors (SSRI).

These drugs, which are the most commonly prescribed antidepressants and anxiolytics, have a delayed onset of action (4-6 weeks), which has led to the suggestion that their effects are mediated by growth related events. Chronic antidepressant treatments have been shown to stimulate neurogenesis in the dentate gyrus of the hippocampus and to decrease certain anxiety-related behavioral responses. We have shown that the 5-HT<sub>1A</sub> knockout mice are insensitive to both the behavioral effects of chronic fluoxetine and the effects of chronic fluoxetine on hippocampal neurogenesis. In order to establish a causal relation between these two phenomena we have established a focal irradiation procedure that selectively disrupts hippocampal neurogenesis. We show that mice whose hippocampus has been treated with X-ray, become insensitive to fluoxetine and imipramine treatment. These results suggest that hippocampal neurogenesis is required to mediate the behavioral effects of antidepressants and point to a new role for the hippocampus in mood control.

No. 53E

**PTSD: LOOKING TOWARDS DSM-V**Elie G. Karam, *Balamand University, Department of Psychiatry, Beirut, 1100-2807***SUMMARY:**

Post-traumatic Stress Disorder (PTSD) in many ways illustrates the concept of Stress Related Fear Circuitry Disorders. PTSD is quite important in this respect since it carries potential non-verbal diagnostic implications, as well as, genetic cognitive neuro-scientific risk factors. The APA has engaged an active discussion in the possible changes of the Diagnostic Classification System (DSM) and several factors would support a change in the diagnostic criteria: the A1, A2, as well as B, C, D, and E criteria; a controversial issue is the debate of functional impairment as an essential inclusion in the diagnosis. The categorical approach did not account so far for many of the sub-syndromal findings. Comorbidity comes here as an added independent or dimensional variable. Cross-cultural and developmental issues make of PTSD a prototype of the Fear Circuitry Disorders in their "natural" settings.

**REFERENCES:**

1. Harvey et al., (2004). *Cognitive Behavioral Processes Across Psychological Disorders*. NY, NY: Oxford University Press.
2. Brown, T. *Classification of Anxiety Disorders in Stein M and Hollander E: Textbook on Anxiety Disorders*, Washington, D.C. American Psychiatric Publishing, 2002.
3. Ballenger JC, Davidson JR, Lecrubier Y, Nutt DJ, Marshall RD, Nemeroff CB, Shalev AY, Yehuda R.: Consensus statement update on posttraumatic stress disorder from the international con-

sensus group on depression and anxiety. *J Clin psychiatry* 65(Supp.

4. Gordon JA, Lacefield CO, Kentros CG, Hen R: State-dependent alterations in hippocampal oscillations in serotonin 1A receptor-deficient mice. *J Neurosci.* 13;25(28):6509-19, 2005.

## **SYMPOSIUM 54—THE METHAMPHETAMINE EPIDEMIC IN THE U.S.**

### **National Institute on Drug Abuse**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should have greater knowledge of the prevalence of methamphetamine abuse, the associated neurobiological consequences, the psychiatric manifestations of methamphetamine abuse, psychiatric and medical comorbidities, and the treatment of methamphetamine dependence and comorbid mental disorders. More specifically, the participant should be able to recognize, diagnose, and treat methamphetamine dependence and comorbid psychiatric disorders.

#### **No. 54A NEUROBIOLOGICAL EFFECTS OF METHAMPHETAMINE ABUSE: ACUTE AND LONG TERM.**

Linda Chang, M.D. *University of Hawaii, Department of Medicine, 1356 Lusitana Street, UH Tower #724, Honolulu, HI, 98613*, Napa-pon Sailasuta, Ph.D., Daniel A. Alicata, M.D., D. Christopher Derauf, M.D., Helenna Nakama, M.D., William F. Haning III, M.D., Kenneth Yue, Ph.D., V. Andrew Stenger, Ph.D., Thomas Ernst, Ph.D.

#### **SUMMARY:**

Methamphetamine (METH) is an addictive stimulant drug that primarily affects the dopaminergic and serotonergic systems in the brain. The neurotoxic effects of METH have been demonstrated in numerous animal models. More recently, potential METH-induced neurotoxicity in humans has been suggested by neuropsychological tests and several functional neuroimaging studies, and further evaluated by postmortem analyses. However, data regarding possible brain abnormalities in METH abusers remain scant. Furthermore, although some functional changes appear to be reversible, how changes in brain structure or neurochemicals (e.g. glutamate) relate to abstinence, treatment, or relapse is unknown.

Morphometric data from our laboratory demonstrate that abstinent METH users show clear evidence for structural brain abnormalities on MRI, with enlarged striatal structures (putamen and globus pallidus). In addition, conventional *in vivo* proton magnetic resonance spectroscopy (<sup>1</sup>H MRS), which can reliably and non-invasively quantify neurochemicals that reflect neuronal density (N-acetyl aspartate or NAA) and other cellular markers (choline-compounds, total creatine and myoinositol) in selected brain regions, has shown decreased NAA and elevated myoinositol. Conventional MRS can also measure glutamate and glutamine (GLU+GLN=GLX), although their resonance signals overlap. Investigators from our laboratory have co-developed and implemented a novel <sup>1</sup>H MRS technique (TE-averaged PRESS sequence) that can measure glutamate levels reliably, without the overlapping signals from glutamine, in the brain. Since brain glutamate levels may play an important role in craving and relapse of stimulant addiction, it is important to assess changes in glutamate levels during treatment. Our preliminary findings suggest that during early abstinence, methamphetamine abusers show decreased glutamate, and that the glutamate levels may normalize with non-pharmacological treatment (prolonged abstinence).

We will also present preliminary findings from teenagers who abused methamphetamine, as well as preliminary studies in children who had prenatal methamphetamine exposure. Lastly, we will demonstrate brain activation abnormalities on BOLD-fMRI, with decreased activation in the normal working memory network but increased prefrontal activation in areas adjacent to the normal network, in a group of methamphetamine abusers.

#### **No. 54B METHAMPHETAMINE USE, ABUSE, DEPENDENCE AND TREATMENT: SURVEY FINDINGS, 2002-2004**

James D. Colliver, Ph.D. *SAMHSA-OAS, 1 Choke Cherry Road, Rm. 7-1008, Rockville, MD, 20857*

#### **SUMMARY:**

Treatment admissions for primary methamphetamine problems increased more than 5-fold from 1993 to 2003. Rates of current methamphetamine use, however, remained stable from 2002 to 2004, the years for which recent trends are available. This presentation will look further at epidemiologic indicators of use, abuse and dependence and at treatment rates to elucidate the nature and extent of the methamphetamine problem in the U.S.

#### **No. 54C METHAMPHETAMINE ABUSE AND HIV/AIDS COMORBIDITY: TREATMENT IMPLICATIONS**

Perry N.Halkitis, PH.D., *New York University, NY, 10003*

#### **SUMMARY:**

Methamphetamine use has been closely linked to sexual risk taking in the gay and bisexual population. While previous studies have noted this relationship, few empirical investigations have quantified this association. As part of a larger, longitudinal study of club drug use among gay and bisexual men in New York City, we assessed the sexual risk taking of those who identified as methamphetamine users. A subset of these men, who reported either a seronegative or unknown HIV status, were confirmed to be HIV-positive. Comparisons of this group to confirmed HIV-negative methamphetamine using men in our sample, indicated that these unknown to be HIV positive individuals differed in their reasons for methamphetamine use and in terms of their sexual risk taking. In particular, those who had seroconverted reported higher levels of unprotected receptive anal intercourse while high. Our study confirms that methamphetamine may play a causal role in HIV infection and may fuel the HIV epidemic at large. Treatment implications are considered.

#### **No. 54D BEHAVIORAL TREATMENT APPROACHES FOR METHAMPHETAMINE DEPENDENCE, COMORBID PSYCHIATRIC DISORDERS, AND HIV-RELATED RISK BEHAVIORS**

Richard A. Rawson, Ph.D., *UCLA, Department of Psychiatry and Biobehavioral Sciences ? ISAP, 11705 Santa Monica Boulevard, Suite 200, Los Angeles, CA 90025-7510*

#### **SUMMARY:**

Empirically-supported treatments for methamphetamine dependence currently are limited to a group of behavioral and cognitive-behavioral strategies. There are now 5 controlled clinical trials in the literature evaluating treatments for methamphetamine dependence. The presentation will review the studies using several cognitive behavioral therapy protocols, several contingency management protocols and a combination strategy referred to as the Matrix Model.



The presentation will highlight particular strengths of the approaches, patient characteristics of those individuals who fared particularly well or poorly in these trials and evidence about the long term impact of these interventions.

Methamphetamine users present at treatment with high levels of psychiatric symptoms. Data will be presented on the frequency and types of symptoms exhibited by a several large cohorts of methamphetamine dependent individuals who present for clinical trials. Further, the relationship between methamphetamine dependence and infectious diseases has only recently been studied. Among men who have sex with men (MSM), methamphetamine poses a significant set of risks for HIV transmission. Research with this population has found several specific interventions to reduce methamphetamine use and associated HIV risk behavior. Among non-MSM populations, there is very little indication that methamphetamine use and HIV transmission are associated. However, there is a very significant relationship between methamphetamine use and Hepatitis C transmission. The behaviors that appear to be of most importance in this public health problem will be described.

#### REFERENCES:

1. Chang L, Cloak C, Patterson K, Grob C, Miller EN, and Ernst T. Enlarged Striatum in Abstinent Methamphetamine Abusers: A Possible Compensatory Response. *Biological Psychiatry* 2005;57:967-974.
2. Substance Abuse and Mental Health Services Administration: The NSDUH Report: Methamphetamine Use, Abuse, and Dependence: 2002, 2003, and 2004. Rockville, MD, Substance Abuse and Mental Health Services Administration, 2005.
3. Halkitis, P.N., Parsons, J.T., & Wilton, L. (2003). An exploratory study of contextual and situational factors related to methamphetamine use among gay and bisexual men in New York City. *Journal of Drug Issues*, 33(2), 413-432.
4. Rawson, R. A., McCann, M.J., Flammino, F., Shoptaw, S., Miotto, K., Reiber, C., and Ling, W. (2006). A comparison of contingency management and cognitive-behavioral approaches for stimulant-dependent individuals. *Addiction* 101(2): 267-74.
5. Rawson, R.A., Marinelli-Casey, P., Anglin, M.D., Dickow, A., Frazier, Y., Gallagher, C., Galloway, G.P., Herrell, J., Huber, A., McCann, M.J., Obert, J., Pennell, S., Reiber, C., Vandersloot, D., Zweben, J., and the Methamphetamine Treatment Project Corporate Authors. (2004). A multi-site comparison of psychosocial approaches for the treatment of methamphetamine dependence. *Addiction*, 99, 708-717.
6. Rawson, R. A., Gonzales, R. and Ling, W. Methamphetamine Abuse and Dependence: An Update. (In Press). *New Directions in Psychiatry*.
7. Roll, JM, Petry, NM, Stitzer, M., Brecht, ML, Pierce, J., McCann, M, Blaine, J., MacDonald, M., and Kellog, S. (In Press) Contingency Management for the Treatment of Methamphetamine Use Disorders. *Archives of General Psychiatry*.

## SYMPOSIUM 55—PREVENTING SCHIZOPHRENIA: OPPORTUNITIES AND CHALLENGES

### EDUCATIONAL OBJECTIVES:

Recognize the types of prevention possible (primary, secondary, tertiary) and the status quo of prevention research in schizophrenia (first episode and prodromal).

#### No. 55A REDUCING THE DAMAGE OF THE FIRST PSYCHOSIS ONSET

Ingrid Melle, M.D. *Ullevaal University Hospital, Department of Psychiatry, Kirkeveien 166, Oslo, N0407, Norway*, Tor K. Larsen,

M.D., Svein Friis, M.D., Ulrik Haahr, M.D., Jan O. Johannesen, M.D., Stein Opjordsmoen, M.D., Erik Simonsen, M.D., Per Vaglum, M.D., Thomas H. McGlashan, M.D.

#### SUMMARY:

**Background:** Can a reduction in the duration of untreated psychosis (DUP) attenuate the severity and negative consequences of symptom onset in first-episode psychosis (FEP)?

**Material and method:** The TIPS study includes consecutive FEP from four Scandinavian health care sectors over four years, half recruited from two sectors with an early detection program (ED-area) and half from the two sectors without such a program (no-ED). Patients received a broad assessment including the SCID (diagnosis), PANSS (symptoms), GAF (functioning) and treatment data (hospitalization, etc).

**Results:** A total of 281 patients were included, 141 from the ED area and 140 from the NoED area. Patients from the ED area had a statistically significantly shorter DUP (median 5 weeks) compared to 16 weeks and significantly lower severity levels across all symptom dimensions (PANSS positive symptoms 18.8 (4.9) vs 21.7 (5.6), PANSS negative symptoms 13.9 (5.7) vs 16.6 (7.5), and PANSS general symptoms 31.6 (7.6) vs 38.4 (10.4)). They also had lower levels of severe suicidal symptomatology, and suicide plans or attempts were to a significantly lower degree the reason for their first treatment contact (14 (10%) vs 30(22%)). Patients from the ED area were also hospitalized involuntarily at a significantly lower rate than patients from the no-ED area.

**Conclusion:** Reducing DUP brings FEP patients into treatment with lower symptom levels, lower rates of severe suicidality and lower involuntary admissions. The initiation of treatment is therefore quicker and safer with a therapeutic alliance that is more robust.

#### No. 55B TREATMENT OF THE SCHIZOPHRENIA PRODROME -- UPDATE 2006

Scott Woods

#### SUMMARY:

In the past decade, substantial progress has been made in identifying prospectively patients who appear to be suffering from symptoms that are prodromal for schizophrenia. Current diagnostic criteria for the schizophrenia prodrome have proven to be reliable and accurate in predicting the onset of schizophrenia approximately half the time. These diagnostic criteria identify a group of patients who are currently symptomatic, functionally impaired, mildly impaired cognitively and treatment-seeking, in addition to being at risk for progression of illness without treatment. While improvement of the diagnostic criteria continues to be an important research need, progress to date has been sufficient to indicate the need for treatment research on behalf of this new clinical population. Three modest-sized randomized treatment studies enrolling prodromal patients have been published to date. They have compared open-label risperidone plus cognitive behavior therapy (CBT) to a condition containing neither, olanzapine to placebo, and CBT to monitoring alone. The limitations and strength of these studies, and available data from unpublished and ongoing trials, will be discussed in detail. Taken together, the results are not yet sufficient to propose a standard of clinical care for prodromal patients but do strongly support the need for continued treatment research in this newly identified clinical population.

No. 55C

**PREDICTING SCHIZOPHRENIA: EARLY RISK FACTORS**

Barbara A. Cornblatt, Ph.D. *The Zucker Hillside Hospital, Psychiatry Research, 444 Lakeville Rd, Suite 303, RAP Program, Lake Success, NY, 11042*

**SUMMARY:**

Early risk factors, flagging individuals with a true susceptibility to later illness, are a cornerstone of prevention in schizophrenia. Such predictors were first explored in traditional genetic high-risk studies, which focused on the at-risk offspring of affected parents. More recently, a new type of high-risk research has emerged, in which young people are considered to be at-risk based on emerging clinical and behavioral signs and symptoms (rather than family history). Clinical high-risk (CHR) studies have shifted interest from the pre-morbid to the prodromal phase of schizophrenia, when risk factors are more accurate and interventions, therefore, more feasible. The Recognition and Prevention (RAP) program is a prospective study of prodromal adolescents and young adults. Thus far, two categories of risk factors have been identified as part of the RAP research program: 1) predictors of conversion to psychosis, based primarily on specific clinical signs and symptoms emerging during the prodromal phase of illness; and 2) less specific indicators of adult functional disability. The latter category involves a range of early developmental deficits (including cognitive, affective, social and academic), which have limited usefulness as psychosis predictors, but severely restrict independent adult functioning. These findings and their implications for early intervention will be discussed.

No. 55D

**PSYCHOLOGICAL INTERVENTIONS FOR THOSE AT ULTRA HIGH RISK OF PSYCHOSIS**

Jean Addington, Ph.D. *University of Toronto, Psychiatry, CAMH, 250 College Street, Toronto, ON, M5T 1R8, Canada*

**SUMMARY:**

A new development in prevention of schizophrenia is the potential of psychological interventions for those at "ultra high risk" (UHR) of developing psychosis. Prior to the diagnosis of a prodromal state, these young people are help-seeking. After diagnosis, although pharmacological treatments seem to be effective, this is not the treatment of choice for most of these young people who generally prefer to engage in psychological treatments. Work emerging in this field is examining the effectiveness of interventions including cognitive-behavioral therapy (CBT), cognitive-remediation, supportive therapy and family work (Addington et al, 2006). A recent British trial suggested that a psychological intervention such as CBT may delay the onset of psychosis. This presentation will review the ongoing work in this area with a particular focus on a randomized trial of CBT vs support that is currently underway in Toronto with UHR individuals. The CBT approach to be described is based on an individual case formulation that utilizes change strategies such as normalization, generating and evaluating alternative explanations, safety behaviours, metacognitive beliefs and social isolation to address the diverse array of presenting symptoms and problems that will be illuminated through cases and our baseline data. Follow-up data addresses engagement, adherence and alliance issues.

No. 55E

**PREVENTION RESEARCH IN PSYCHOSIS: CURRENT STATE OF THE ART**

Thomas H. McGlashan, M.D. *Yale University, Department of Psychiatry, 301 Cedar Street, New Haven, CT, 06519*

**SUMMARY:**

As Chair I will open the symposium with a description of the three kinds of prevention possible in psychosis (primary or decreasing incidence, secondary or decreasing prevalence/ vulnerability, and tertiary or decreasing severity and collateral damage, all with examples). As Chair I will follow the presenters with the fifth talk of the symposium. The talk will have two aims. The first aim is to elaborate the one year outcome of the TIPS first episode sample which shows that the baseline positive symptom and global functioning advantages of the early-detected sample are no longer significant by one year whereas the advantages in negative symptoms and quality of life remain significant. Two year outcome will be presented if available. The second aim of the fifth talk will be to review and summarize the findings on prevention elaborated by the symposium presenters, to place their data in the context of other psychosocial and pharmacotherapeutic prevention studies ongoing in the field, and to finish with an integrated portrait of the current state of international psychosis prevention research.

**REFERENCES:**

1. Melle I, Larsen TK, Haahr U, Friis S, Johannessen JO, Opjordsmoen S, Simonsen E, Rund BR, Vaglum P, McGlashan T. Reducing the duration of untreated first-episode psychosis: effects on clinical presentation. *Arch Gen Psychiatry*. 2004 Feb;61(2):143-50.
2. Woods SW, et al: Randomized trial of olanzapine vs placebo in the symptomatic acute treatment of patients meeting criteria for the schizophrenia prodrome. *Biological Psychiatry* 2003;54:453-464.
3. Cornblatt BA, Lencz T, Smith CW, Correll CU, Auther AM, Nakayama E. The schizophrenia prodrome revisited: a neurodevelopmental perspective. *Schizophrenia Bulletin*, 29(4):633-51, 2003.
4. Addington J, Francey SM, Morrison AP: Working with people at high risk of developing psychosis: A treatment handbook. Chichester, UK, Wiley, 2006.
5. McGlashan TH, Early Detection and Intervention in Schizophrenia: Editor's Introduction, *Schizophrenia Bulletin*, 22(2):197-199, 1996.

**SYMPOSIUM 56—HIV UPDATE FOR PSYCHIATRIC CARE  
APA Committee on AIDS****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participants should be able to: 1) Discuss the latest trends in cases of infection; 2) Recognize the challenges psychiatrists face when diagnosing and treating people living with HIV; 3) Identify prognostic indicators and clinical manifestations of HIV disease; 4) Apply current treatment and management strategies; 5) Describe new and emerging clinical issues (including Hepatitis C and club drugs)

No. 56A

**HIV MEDICAL UPDATE**

Peter Gouch, M.D.

**SUMMARY:**

HIV continues to spread at alarming rates throughout the world, having already claimed more than 20 million lives. While great strides have been made in understanding the natural history of the disease, much is still unknown, and treatments remain complex and available to less than 5% of those infected throughout the world. Rates of new infections continue to rise in the young, sexually active population, and in injecting drug users, while new infections are

being documented in among seniors. And a co-existing epidemic of Hepatitis C has blossomed among those at risk for or infected with HIV.

As HIV both exacerbates and causes psychiatric disorders, psychiatrists continue to play an increasingly active role in the assessment and treatment of people infected with HIV, and in the care of those most at risk. HIV is a behavioral epidemic which requires the integration of medical, psychiatric, and social services in the health care delivery system. This session will provide an update on the basic medical knowledge all psychiatrists must have to work with people at risk for or infected with HIV, presenting information on epidemiology, new clinical challenges, current treatments, patient management, integrated care, and complications of drug-drug interactions.

### No. 56B HEPATITIS C AND HIV INFECTION

Antoine B. Douaihy *University of Pittsburgh, Department of Psychiatry, Pittsburgh, PA, 15213*

#### SUMMARY:

Infection with Hepatitis C can worsen the deficits in brain function caused by HIV disease. It is speculated that hepatitis C virus may cause damage to brain cells and bring about cognitive impairment, by infecting cells within the brain itself. Alternatively, the virus could infect cells that move into the brain from the blood, where it could increase the rate of HIV replication. What is clear is that hepatitis C virus may cause major cognitive impairment among those infected and increase HIV morbidity. And because the majority of hepatitis C virus-infected adults have additional risk factors for cognitive impairment such as drug or alcohol abuse or HIV infection, the prevalence of cognitive impairment among these persons may be disconcertingly high. During this session participants will review the medical, social, and psychiatric dimensions of the dual epidemic of hepatitis C and HIV, including the effects of antiviral therapy on cognitive functioning, psychopharmacology with impaired liver function, and the psychology of addiction and sobriety issues.

### No. 56C CLUB DRUGS AND HIV

Milton L. Wainberg, M.D., *Columbia University, Department of Psychiatry, 404 Riverside Drive, 5B, New York, NY 10025*

#### SUMMARY:

Club drugs are illegal drugs that are often, although not exclusively, used at dance clubs, raves and circuit parties. Misuse of club drugs can lead to problems with toxicity (from the drugs themselves or from interactions with other drugs), addiction, and high HIV risk behaviors. Perhaps most alarming is the increased use of the club drug methamphetamine, also known as crystal meth. It's theorized that amphetamines may suppress the immune system, allowing the virus to replicate more quickly in the body. Methamphetamine also contributes to unsafe sex practices that make the spread of HIV more likely. This highly addictive drug releases people from their inhibitions, leading otherwise sexually responsible men, women and teenagers to engage in risky sexual behavior. During this session participants will examine the complex interaction between sexual risk-taking, addiction, treatment adherence, drug interactions, and patient management.

### No. 56D BODY IMAGE AND HIV

Marshall Forstein, M.D. *Harvard, Department of Psychiatry, 24 Olmstead, Jamaica Plain, MA, 02130-2910*

#### SUMMARY:

People living with HIV face numerous challenges when managing their health. One of the most distressing observations includes visible changes in body shape and appearance as a result of lipodystrophy, which has increased in recent years with the widespread use of anti-HIV therapy. HIV lipodystrophy syndrome, which includes metabolic complications and altered fat distribution, is of major importance in HIV therapy. Lipodystrophy has significant physical and psychological effects on the individual including, but not limited to, metabolic issues, cardiovascular disease, bodily discomfort, low self esteem, depression, sexual dysfunction, social isolation, and reduced treatment adherence. During this session participants will discuss the impact of lipodystrophy syndrome on HIV management, diagnosis and treatment, steroid use, mental health, and quality of life.

#### REFERENCES:

1. Armstrong, W., Calabrese, L., Taegle A. HIV update 2005: origins, issues, prospects, and complications. *Cleveland Clinical Journal of Medicine*, Vol. 72, No. 1, 2005.
2. Hilsabeck RC, Perry W, Hassassein TI. Neuropsychological impairment in patients with chronic hepatitis C. *Hepatology* 2002;35:440-446.
3. Urbina A, Jones K. Crystal methamphetamine, its analogues, and HIV infection: medical and psychiatric aspects of a new epidemic. *Clin Infect Disease*. 2004 Mar 15; 38(6):890-4.
4. Martinez, SM, Kemper CA, Diamond C, Wagner G. Body image in patients with HIV/AIDS: assessment of a new psychometric measure and its medical correlates. *AIDS Patient Care STDs*. 2005 Mar; 19(3): 150-6.

## SYMPOSIUM 57—VOTING BY PERSONS WITH COGNITIVE IMPAIRMENT

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to understand the legal framework and practical issues related to voting by people with serious mental illnesses and dementias; know how to assess someone's competence to vote; and suggest ways of protecting voting rights while insuring the integrity of elections in these populations.

### No. 57A VOTING BY PERSONS WITH COGNITIVE IMPAIRMENT: OVERVIEW OF THE ISSUES

Richard Bonnie, J.D. *University of Virginia School of Law, 580 Massie Rd, Charlottesville, VA, 22901*

#### SUMMARY:

This presentation provides an overview of ethical and legal problems associated with voting by persons with cognitive impairment, highlighting the challenge of facilitating political participation by people who are qualified to vote while protecting the integrity of the electoral process. After summarizing state laws disqualifying people from voting based on "mental incapacity" and relevant federal law, the presentation will identify the types of cognitive impairment that might be relevant to capacity to vote. It will then focus on the problems presented by people with dementia living in long-term care facilities, the context in which problems are most likely to arise. Electoral practice in the United States will also be compared to what is known about practice in other countries.

No. 57B  
**VOTING BY PERSONS WITH COGNITIVE  
 IMPAIRMENTS: THE LEGAL ISSUES**

Pamela Karlan *Stanford Law School*

**SUMMARY:**

U.S. electoral laws are a patchwork of federal, state and local statutes, court decisions, and administrative practice. When it comes to the voting rights of cognitively impaired individuals, the law is particularly tangled.

The National Voter Registration Act of 1993 specifically acknowledges the traditional state prerogative to disenfranchise persons "by reason of criminal conviction or mental incapacity." At the same time, several other federal statutes prohibit discrimination against the disabled, require that voters be allowed assistance in voting, and guarantee access to the polls.

States laws vary substantially. About two-thirds of the states and the District of Columbia disenfranchise individuals on the basis of legal classifications not specifically related to the capacity to vote. Only eight states focus their exclusionary criteria specifically on the capacity to vote.

There are several points in the path to casting a ballot at which individuals might be excluded. First, registration forms may ask for information that leads to the application being rejected. Second, when a person attempts to register or to vote, a voting official might doubt his capacity and refuse to supply a registration form or a ballot. Third, staff at long-term care facilities or family caregivers may serve as gatekeepers, deciding whether to inform individuals of their right to vote and whether and how to assist them in registering or voting.

Given the fundamental character of the right to vote under modern doctrine, laws or governmental practices disqualifying individuals without a specific determination of incapacity to vote may well violate the federal constitution as well as other laws. For example, standards that disqualify voters who lack the capacity to cast an "intelligent" vote or to understand the precise issues on the ballot and exercise a reasoned choice are no longer permissible.

At the same time, failure to remove from the rolls citizens who are no longer competent to vote poses dangers of coercion and fraud, particularly given liberalized access to absentee ballots. Of particular interest to an audience at the APA, at least one type of assistance in voting that might at first glance seem appropriate - voting on the incompetent person's behalf as a proxy decision-maker - is impermissible. Although it is well-established legally and ethically that proxies are authorized to make decisions for persons who cannot make decisions for themselves in medical contexts, a proxy is not permitted to vote on behalf of another person.

My presentation will consider these legal issues and potential policies for addressing them.

No. 57C  
**ASSESSING COMPETENCE TO VOTE IN A  
 COGNITIVELY IMPAIRED POPULATION**

Paul S. Appelbaum, M.D. *University of Massachusetts Medical School, Department of Psychiatry, 55 Lake Avenue North, Worcester, MA, 01655*

**SUMMARY:**

Voting is a fundamental right of citizenship in a democratic society, and hence is open to almost all adult citizens. One important exception is people who lack the capacity to vote, which can occur as a result of mental illness, mental retardation, brain injury, or dementia. Protecting the rights of citizens, while simultaneously ensuring the integrity of the voting process, requires that a careful line be drawn to separate competent from incompetent voters. Under

the Voting Rights Act, persons cannot be excluded merely because they do not speak English or are illiterate. Attempts to insure that voters have the ability to exercise an informed choice have also been struck down by the courts. Hence, wherever the line is to be drawn, it is clear that the requirements for competence to vote are fairly nondemanding. The first functional standard to address the specific capacities required by voting was formulated in 2001 by a federal district court in Maine in the case of *Doe v. Rowe*. The court held that persons who had an understanding of the nature and effect of voting so as to be able to make a choice were competent to vote. This *Doe* standard was operationalized by our research group in a brief questionnaire: Competence Assessment Tool-Voting (CAT-V). The CAT-V also included questions regarding potential voters' abilities for appreciation and reasoning; these were added for purposes of comparison to other decisional capacities, since they are not part of the *Doe* standard. Interviews done with 32 patients in an Alzheimer's disease clinic revealed that patients with mild dementia always retained the capacity to vote, while patients with severe dementia uniformly lost that capacity. In the moderate range of the disorder, there was considerable heterogeneity, with MMSE scores lacking predictive value. A person's expressed desire to vote was not a good predictor of whether that person retained voting capacity. These data suggest that it is possible to design brief instruments to identify persons who may lack voting capacity, and pinpoint a population of persons with moderate Alzheimer's disease as a particular target for screening. Such efforts could, in theory, also be extended to populations with serious mental illness and mental retardation, as well as traumatic brain injury, especially in institutional settings. However, concerns expressed by civil libertarians regarding the possible pernicious effects of screening include its use to systematically exclude persons from voting, like the literacy tests used prior to adoption of the Voting Rights Act. On the other hand, screening programs could provide reassurance to public officials wary of the potential incapacities of people with mental disorders, mild dementia, mild retardation, and other conditions and facilitate efforts to encourage appropriate voting by these groups.

No. 57D  
**RESPECTING RIGHTS AND PRESERVING THE  
 INTEGRITY OF ELECTIONS -- THE CHALLENGES  
 OF VOTING IN LONG TERM CARE FACILITIES**

Jason Karlawish *University of Pennsylvania,*

**SUMMARY:**

**Purpose:** To gather data to inform the development of guidelines, best practices and staff education for voting in long-term care settings.

**Design and methods:** A telephone survey of Philadelphia nursing and assisted living settings following the 2003 municipal election was conducted with the staff member most familiar with voting to determine (1) the prevalence of voting and reasons residents did not vote; (2) procedures for registration and voter assistance; and (3) whether and how staff decide residents cannot vote. Data included both quantitative fixed choice questions and open-ended questions that were analyzed qualitatively.

**Results:** Among the 51 nursing and assisted living settings (61% response rate) that were home to 6,217 residents there was substantial variability in the proportion of residents who voted (29%+28, range 0 to 100%) and at most facilities the social worker or activities director had charge of registration and voting. Variability in the proportion of voters was likely due at least in part to these staff members' attitudes and practices. At nearly one-third of the sites some residents who wanted to vote were unable to, and the reasons were largely remediable procedural problems. Also, the assessments of voting capacity used methods that probably disenfranchise resi-

dents who are actually competent to vote because they demand a higher capacity than the law requires.

Implications: Election officials should take charge of voter registration, filing for absentee ballots, oversight of ballot completion, and education of long-term care staff on issues of voter rights and reasonable accommodations to facilitate voting rights.

#### REFERENCES:

1. Karlawish JH, Bonnie RJ, Appelbaum, PS et al: Addressing the ethical, legal and social issues raised by voting by people with dementia. *JAMA* 2004; 1345-1350.
2. Karlawish JH et al.: Addressing the Ethical, Legal and Social Issues Raised By Voting By Persons with Dementia, *JAMA* 2004; 292: 1345.
3. Appelbaum PS, Bonnie RJ, Karlawish JH: The capacity to vote of person's with Alzheimer's disease. *Am J Psychiatry* (in press, 2005).
4. Smith, A., & Sabatino, C. P. (2004). Voting by residents of nursing homes and assisted living facilities: state law accommodation. *Bifocal*, 26(1), 1-2, 4-10.

## SYMPOSIUM 58—NOT YOUR PARENTS' EEG: CLINICAL APPLICATIONS OF AUDITORY AND VISUAL EVENT-RELATED POTENTIALS

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the symposium, participants should be able to demonstrate understanding of the conditions used to elicit common evoked potentials such as mismatch negativity (MMN) or P300, and recognize the reasons that generation of such potentials may be impaired in schizophrenia. Participants should also be able to recognize the potential uses of these measures in everyday clinical practice with schizophrenia

#### No. 58A EVENT-RELATED POTENTIAL (ERP) ABNORMALITIES IN SCHIZOPHRENIA

Daniel C. Javitt, M.D. *Nathan Kline Institute Psychiatric Research, 140 Old Orangeburg Road, Orangeburg, NY, 10962-1157*

#### SUMMARY:

The goal of this study was to evaluate event-related potential (ERP) markers of cognitive dysfunction in schizophrenia. Auditory and visual ERP were evaluated in separate studies. Auditory studies focused on mismatch negativity (MMN) and auditory N1; visual studies, on P1 and N1. Both MMN and N1 were substantially reduced in patients with schizophrenia compared with normal volunteers ( $p < .0001$ ). Patients also showed significantly elevated thresholds for detecting changes in tone pitch, which showed an upward relationship with inability to correctly decode emotions from spoken language, and a downward correlation with disturbances in MMN generation. In the visual system, patients showed substantial reductions in P1 amplitude ( $p < .0001$ ), along with decreased response to stimuli that selectively activate the magnocellular visual pathway. Deficits in magnocellular activation significantly predicted difficulties in decoding a variety of visual images, including fragmented images and facial emotion. Prior markers of cognitive dysfunction, such as P3, indexed late stages of cognitive processing and were relatively non-specific. Present markers, such as MMN, auditory N1 and visual P1, index early stages of processing, and show higher specificity while potentially reflecting perceptual level disturbances in schizophrenia.

#### No. 58B PROBING THE COGNITIVE, CLINICAL, AND FUNCTIONAL IMPAIRMENTS OF SCHIZOPHRENIA PATIENTS WITH MISMATCH NEGATIVITY

Gregory A. Light, Ph.D. *University of California, San Diego, Psychiatry, 9500 Gilman Drive, Mailcode 0804, La Jolla, CA, 92093-0804*, David L. Braff, M.D.

#### SUMMARY:

Schizophrenia patients have widespread deficits ranging from abnormalities in sensory processing to impairments in cognition and daily living. Mismatch Negativity (MMN) is an EEG waveform that is automatically elicited by infrequent, "oddball" stimuli that occur during the presentation of more frequent, "standard" stimuli. The MMN represents a probe of the earliest, "pre-attentive" stages of information processing. Schizophrenia patients have robust MMN deficits that are both highly stable over 1 year ( $ICCs > 0.90$ ) and associated with their global functional impairments. The aims of the present study were to examine the specific domains of everyday functioning, clinical symptoms, and neurocognition associated with MMN deficits in a large sample of schizophrenia patients.

Schizophrenia Patients ( $n=150$ ) and normal comparison subjects ( $n=108$ ) underwent MMN testing and extensive cognitive, clinical, and functional assessments at the UCSD Schizophrenia Program Laboratory. Demographic, symptom, medication and other variables were assessed; Diagnoses were obtained via SCID interviews. Patients were divided into subgroups based on levels of MMN impairment to assess the association of MMN to neurocognitive, clinical, and functioning in these subgroups.

Decreased MMN was also observed with increased age in both schizophrenia patients and normal comparison subjects. Thus, analyses were performed on age-corrected MMN Z-scores derived from the normative sample. Consistent with previous reports, schizophrenia patients had significantly reduced MMN. Degree of MMN impairment was selectively associated with deficits on tests of working memory ( $p < 0.001$ ) and verbal recall ( $p < 0.01$ ). MMN deficits were also associated with more severe negative symptoms ( $p < 0.01$ ), reduced performance ( $p < 0.05$ ) on a comprehensive functional skills assessment battery (e.g., ability to perform basic financial tasks), and significantly ( $p < 0.001$ ) lower ratings on several measures of functional status (e.g., independence in living situation, managing personal finances, Scale of Functioning, Global Assessment of Functioning Scale). In contrast, MMN deficits were not associated with performance on other cognitive measures of word reading ability, immediate attention, perseverative thinking, or clinical ratings of positive symptoms, disorganization or thought disorder.

MMN deficits, reflecting neural dysfunction at the earliest stages of automatic sensory information processing, are associated with the core cognitive, clinical, and functional deficits of schizophrenia patients. MMN may have multiple applications including use as a biomarker in drug development and as an endophenotype in genetic studies of schizophrenia.

#### No. 58C ERP P300 AND MISMATCH NEGATIVITY ABNORMALITIES IN PATIENTS AT ULTRA-HIGH RISK FOR SCHIZOPHRENIA.

Daniel H. Mathalon, M.D. *Yale University School of Medicine, Psychiatry, 950 Campbell Ave, Psychiatry 116a, VACHS, West Haven, CT, 06516*, Thomas H. McGlashan, M.D., Tandy J. Miller, Ph.D., Scott W. Woods, M.D.

#### SUMMARY:

Schizophrenic patients typically experience a prodromal phase before psychosis onset, characterized by attenuated psychotic symp-

toms and functional deterioration. Diagnostic criteria for this prodromal syndrome show moderate predictive validity, with 12-month psychosis conversion rate estimates ranging from 35 to 54%. However, this means 46 to 65% of patients identified as prodromal are not at imminent risk for psychosis and, therefore, may not require or benefit from preventive interventions. Thus, enhancing predictive validity of prodromal criteria by incorporation of neurobiological measures is a major research priority. Two electrophysiological measures known to be abnormal in schizophrenia are the mismatch negativity (MMN) and P300 components of the event-related potential (ERP). These components reflect auditory sensory memory and allocation of attentional resources to infrequent events, respectively. We present data from an ongoing study examining these ERP components in prodromal and early-illness schizophrenia patients, relative to age-matched controls. Clinical correlations of these ERP components with concurrent prodromal symptom severity and subsequent conversion to psychosis during a 12-month follow-up period are also examined.

ERPs were assessed by electroencephalographic recording in 28 prodromal patients (12-25 years old, 17 males), 18 early illness (within 5 years of initial hospitalization) schizophrenic patients (17-37 years old, 16 males), and 44 healthy controls (12-37 years old). The MMN paradigm consisted of a frequent (90%) tone (633 Hz, 50 ms duration) and a pitch/duration mismatch (10%) tone (1000 Hz, 100 ms duration) presented randomly every 510 ms while subjects read a book. P300 was elicited in auditory and visual oddball tasks in which subjects were presented with task-relevant targets (10%) requiring a button press response, task-irrelevant but salient novel stimuli (10%), and frequent standard stimuli (80%). Twelve-month clinical follow-up data were available from 15 prodromal patients, yielding 5 patients who converted to a psychotic disorder.

Early illness patients showed expected reductions, relative to controls, in MMN ( $p=.03$ ) and P300 amplitudes in both auditory (target P3b,  $p=.02$ ; novelty P3a,  $p=.02$ ) and visual (target P3b,  $p=.03$ ; novelty P3a,  $p=.03$ ) modalities. Prodromal patients showed reduced P300 amplitude, relative to age-matched controls, for auditory targets ( $p=.03$ ) and visual novels ( $p=.03$ ), but the other P300 and MMN measures were not significantly reduced. Correlations with symptom severity in prodromal patients showed smaller auditory novelty P3a to be related to more severe positive, negative, and disorganization symptoms. Auditory target P3b and visual novelty P3a amplitude reductions were associated with more severe negative symptoms and predicted subsequent conversion to psychosis during a 12-month follow-up period.

These data show that P300 to auditory targets and visual novels are compromised in prodromal patients and predict subsequent conversion to psychosis. This suggests that compromise of neurocircuitry subserving auditory target detection and orienting to visual novelty may identify prodromal patients who have a particularly high risk for developing psychosis. Auditory novelty P300 was associated with prodromal symptom severity but did not predict conversion to psychosis. MMN was not compromised in prodromal patients, but it was reduced in early illness patients, suggesting that its amplitude may decline early in the illness.

No. 58D

### USE OF AUDITORY ERPS AND OTHER QUANTITATIVE MEASURES IN AN EVIDENCE BASED, PERSON CENTERED PSYCHOSIS TREATMENT PROGRAM

Steven B. Schwarzkopf, M.D. *Rochester Psychiatric Center/University of Rochester, Department of Psychiatry, Rochester Psychiatric Center, 1111 Elmwood Ave, Rochester, NY, 14620*

### SUMMARY:

There currently exists a wealth of valid, reliable, and quantitative measures utilized in schizophrenia research that depict illness related abnormalities, some of which improve significantly with effective pharmacotherapy and psychosocial intervention. In contrast to other areas of medicine, these well-established measures are rarely used to inform treatment or enhance the therapeutic alliance with patients or their families. The psychotherapy and psychiatric rehabilitation literature, as well as the recent person centered treatment movement, have established the importance of the therapeutic alliance and a collaborative approach for optimal psychiatric treatment. This literature consistently shows a significant and positive association between the patient-provider relationship and health behavior, including adherence with medication regimens. This presentation describes a program where established measures of symptomatology, awareness of illness, cognitive function, and auditory event related potentials (ERPs) are used as key components of the treatment rationale and feedback regarding therapeutic progress. A major focus for this program is to provide individualized psychoeducational tools for psychiatrists and primary therapists, to enhance the provider-patient relationship.

The aims of this program are to 1) use well established measures to arrive at a more informed treatment plan for patients, 2) share critical clinical data with patients and families in a more direct and positive manner, 3) improve the likelihood of a more positive provider-patient relationship, by the use of this information as part of a motivational interviewing approach, and 4) increase the likelihood of adherence with individualized evidence based clinical approaches.

A battery of reliable, empirically validated, and quantitative measures were chosen that could be obtained on-site with a reasonable allocation of resources. Feedback sheets with the clinical data were designed to be easily understood by staff, patients and families. All non-forensic adult patients admitted to the Rochester Psychiatric Center (approximately 240 admissions per year) have an initial assessment, followed by specific additional tests. All patients receive the Positive and Negative Syndrome Scale (PANSS) and the Scale for Assessment of Unawareness of Mental Disorder (SUMD). A subgroup of patients receive further cognitive testing and/or auditory ERP testing, depending on the initial test results. Repeat testing is done in select patients. Information from this testing is shared with the patient and family, thereby enhancing ongoing psychoeducational efforts by the psychiatrist and primary therapist. In addition, the sharing of these test results is part of a primary therapy initiative based on motivational interviewing and patient centered treatment principles to ensure greater provider-patient collaboration.

### REFERENCES:

1. Leitman DI, Foxe JJ, Butler PD, Saperstein A, Revheim N, Javitt DC: Sensory contributions to impaired prosodic processing in schizophrenia. *Biol Psychiatry* 2005; 58(1):56-61.
2. Light GA, Braff DL (2005): Mismatch negativity deficits are associated with poor functioning in schizophrenia patients. *Archives of General Psychiatry* 62:127-136.
3. McGlashan TH: Commentary: Progress, issues, and implications of prodromal research: an inside view. *Schizophr Bull* 2003; 29(4): 851-858.
4. Schwarzkopf SB, Crilly J, Silverstein SM: Therapeutic Synergism: Optimal Pharmacotherapy and Rehabilitation To Enhance Functional Outcome in Schizophrenia. *Psychiatric Rehabilitation Skills*, 1999;3:124-147.

**SYMPOSIUM 59—GENETIC FINDINGS RELATED TO ALCOHOL DEPENDENCE AND RELATED CONDITIONS**  
**Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium, the participant should be able to recognize the potential contributions of genetic factors, including specific genes, to the susceptibility for developing alcohol dependence and related conditions during adolescence and adulthood. Genotypic and phenotypic interplay will also be discussed.

**No. 59A**  
**GENETIC SUSCEPTIBILITY FOR ALCOHOL DEPENDENCE: RECENT FINDINGS**

Howard J. Edenberg, Ph.D. *Indiana University School of Medicine, Biochemistry & Molecular Biology, 635 Barnhill Dr, MS 4063, Indianapolis, IN, 46202-5122*

**SUMMARY:**

Alcoholism is a complex genetic disease, in which variations in genes and environment affect risk. There has been substantial recent progress in identifying some of the specific genes in which variations contribute to the risk. I will discuss the strategies used by the Collaborative Study on the Genetics of Alcoholism to identify some of these genes. We carried out a family study, focusing on families in which at least three first degree relatives were diagnosed with alcohol dependence. After conducting a whole genome survey, we focused on linkage disequilibrium studies of genes within identified linkage peaks. We were guided in part by endophenotypes, simpler traits associated with alcoholism. We identified *GABRA2* as a gene in which variations affect both an electrophysiological trait and alcohol dependence; the association with alcohol dependence has now been replicated in independent studies by other groups. We also identified *GABRG3*, *CHRM2* and *ADH4* as a gene affecting alcohol dependence. We are pursuing additional genes that contribute to differences in risk.

**No. 59B**  
**AT RISK FAMILIES: A MULTIGENERATIONAL STUDY OF ALCOHOLISM**

Laura J. Bierut, M.D. *Washington University, Department of Psychiatry, Campus Box 8134, 660 S. Euclid, St. Louis, MO, 63110*, Wendy Reich, Ph.D., Marc A. Schuckit, M.D., Kathleen K. Bucholz, Ph.D.

**SUMMARY:**

Alcoholism has a significant impact on families. Children of alcoholics are at an increased risk of early onset alcohol use, smoking, drug use, and dependence. We examined the impact of parental alcoholism and alcoholism in grandparents, even in the absence of alcoholic parents, on the risk of developing alcohol and other substance dependence. COGA is a multi-site genetic study to detect genes associated with alcoholism. Individuals who met criteria for both DSM-III-R alcohol dependence and Feighner definite alcoholism (COGA criteria) were identified in substance abuse treatment settings and their families were recruited for study. In addition, community based control families were invited to participate to provide population based norms. Control families were not pre-screened for alcoholism or psychiatric illnesses. Children, adolescents and young adults (ages 7-25) were carefully assessed with age appropriate versions

of the Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA). Subjects were selected for analysis and multiple generations were studied. Individuals were stratified based on whether they came from alcohol dependent COGA families (with zero, one or two alcoholic parents) or control families. Consistently, there was a stepwise progression of the risk of developing alcohol and other substance dependence. Control subjects had the lowest risk, followed by subjects with no alcoholic parents (though a member of a COGA family, for example a grandchild of an alcohol dependent individual), subjects with one alcoholic parent, and subjects with two alcoholic parents. The risk of developing alcohol and drug dependence increased in a "dose" dependent manner, and even offspring without alcohol dependent parents, but part of these severely affected families, had an increased risk of alcoholism and drug dependence. These findings demonstrate the risk associated with alcoholism crosses generations and extends to second-degree relatives.

**No. 59C**  
**FURTHER CHARACTERIZATION OF THE RISK ASSOCIATED WITH GABA-A RECEPTOR GENES**

Danielle M. Dick, Ph.D. *Washington University School of Medicine, Psychiatry, Campus Box 8134 660 S Euclid, St Louis, MO, 63110*, Laura J. Bierut, M.D., Tatiana Foroud, Ph.D., Howard Edenberg, Ph.D., COGA collaborators, M.D.

**SUMMARY:**

Advances in genotyping technology and genetic analysis have initiated a new era of gene discovery for psychiatric disorders and related problems. Now that we have begun to identify specific susceptibility genes, the next challenge is to characterize the risk associated with those genes, by further refining the spectrum of phenotypes associated with the gene, by studying how that gene impacts disorders across development, and by examining factors that may moderate the risk associated with the gene. We have begun to explore these questions in relation to *GABRA2*, one of the first genes identified by the Collaborative Study of the Genetics of Alcoholism (COGA) project with association to alcohol dependence (Edenberg et al., 2004). This finding has subsequently been replicated by independent groups (Covault et al., 2004; Lappalainen et al., 2005). In addition to the association of *GABRA2* with alcohol dependence, we find evidence that *GABRA2* is also involved in illicit drug dependence, antisocial personality disorder, and in childhood conduct disorder, as assessed prospectively in a sample of children and adolescents. These findings are in line with the genetic epidemiology literature suggesting that the covariation among these disorders is due, in part, to shared genetic risk factors (e.g., Kendler et al., 2003). In addition, we find evidence for gene-environment interaction, whereby the risk associated with *GABRA2* varies according to context: the risk associated with the genotype is significantly higher among married individuals than among unmarried individuals, although the overall rate of alcohol dependence is higher among the unmarried individuals in our sample. These analyses demonstrate the interesting questions that can be addressed once specific genes associated with psychiatric disorders are identified.

**No. 59D**  
**NEUROPHYSIOLOGICAL ENDOPHENOTYPES AND THE RISK FOR ALCOHOL DEPENDENCE AND RELATED DISORDERS**

Bernice Porjesz, Ph.D. *SUNY Downstate School of Medicine, Psychiatry, Neurodynamics Lab, SUNY Downstate Medical Center / B5-340, Brooklyn, NY, 11203-2098*, Henri Begleiter, Ph.D., Kevin A. Jones, Ph.D., Laura Almasy, Ph.D., Howard Edenberg, Ph.D., Laura

J. Bierut, M.D., John I. Nurnberger, Jr., M.D., Danielle M. Dick, Ph.D., Victor Hesselbrock, Ph.D.

#### SUMMARY:

Biological endophenotypes are more proximal to gene function than psychiatric diagnosis, and therefore provide a powerful strategy in searching for genes involved in psychiatric disorders. These intermediate phenotypes identify both affected and unaffected members of an affected family, including offspring at risk, and provide a more direct connection with the underlying biological deficits. In the COGA project we have made extensive use of highly heritable neurophysiological features (i.e. brain oscillations) as endophenotypes, which have made it possible to identify and map susceptibility genes that may be difficult to identify by direct studies of diagnosis alone. We have reported a highly significant linkage and linkage disequilibrium for the beta frequency of the EEG and *GABRA2*, a GABA<sub>A</sub> receptor gene on chromosome 4, which we have found is also associated with diagnosis of alcohol dependence and related disorders. We have also recently reported significant linkage and linkage disequilibrium between the theta and delta event-related oscillations underlying P3 to target stimuli and *CHRM2*, a cholinergic muscarinic receptor gene on chromosome 7, which we found is also associated with diagnosis of alcohol dependence and depression. Thus, the identification of genes important for the expression of the endophenotypes (brain oscillations) help in the identification of genes that increase the susceptibility for risk of alcohol dependence and related disorders. These findings underscore the utility of quantitative neurophysiological endophenotypes in the study of the genetics of complex disorders.

No. 59E

#### PREDICTION OF ALCOHOL PROBLEMS USING A PROSPECTIVE LONGITUDINAL DESIGN INCLUDING GENOTYPE

John I. Nurnberger, Jr., M.D. *Indiana University School of Medicine, Psychiatry, Insitute for Psychiatric Researc, 791 Union Dr, Indianapolis, IN, 46202-4887*, Ryan Wiegand, M.S., Laura J. Bierut, M.D., Kathleen Bucholz, Ph.D., Tatiana Foroud, Ph.D., Howard Edenberg, Ph.D., John Kramer, Ph.D., Samuel Kuperman, M.D., Danielle M. Dick, Ph.D.

#### SUMMARY:

1022 subjects from 448 families in the Collaborative Study of the Genetics of Alcoholism (COGA) were assessed at two time points separated by an interval of 4-5 years. The age of subjects at Time 2 was 17.4 + 3.4 years. At Time 2, 230 subjects were diagnosed with DSM IV alcohol dependence or abuse by personal interview and/or interview of a parent about the subject. Characteristics at Time 1 were used to predict affected status at Time 2. Multilevel regression modeling was employed. Controlling for age, sex, and Time 1 diagnosis, parental affected status predicted Dependence/Abuse at Time 2 (Odds Ratio 1.4, Confidence Interval 1.0-1.8,  $F = 3.9$ ,  $p < .05$ ); the diagnosis of Conduct Disorder at Time 1 also predicted Dependence/Abuse at Time 2 (OR 1.7, CI 1.0 - 2.9,  $F = 4.4$ ,  $p = .04$ ). The diagnoses of Major Depression and Drug Dependence were also predictive. Affected Status at Time 2 was associated with Age at First Drink as reported at Time 1 (chi-square = 30.8,  $p < .0001$ ). In younger adolescents, *GABRA2* (the alpha 2 subunit of the GABA-A receptor) genotype may be expressed as conduct problems ( $F = 4.0$ ,  $p = .02$ ) and sometimes alcohol abuse. In older adolescents, *GABRA2* genotype is associated with alcohol dependence ( $F = 11.2$ ,  $p < .0003$ ), especially when combined with Alcohol Dehydrogenase 4 genotype. *CHRM2* haplotype (muscarinic cholinergic receptor 2) also predicts DSM IV alcohol dependence ( $F=6.12$ ,  $p < .0056$ ) along with separation anxiety and ADHD; this may be a separate vulnerability pathway. Additional subjects and additional

vulnerability genes are now being studied prospectively. The intention is to develop models for risk and protective factors for the development of alcohol problems, incorporating genotypic information.

#### REFERENCES:

1. Edenberg, H. J. (2002) The Collaborative Study on the Genetics of Alcoholism: an update. *Alcohol Res Health* 26, 214-218.
2. Bierut et al, 2006.
3. Dick, DM, Rose, RJ, & Kaprio, J: The next challenge for psychiatric genetics: Characterizing the risk associated with identified genes. *Annals of Clinical Psychiatry*; in press.
4. Porjesz B, Rangaswamy M, Kamarajan C, Jones K, Padmanabhapillai A. and Begleiter H. *Clin Neurophysiol* 2005; The utility of neurophysiological markers in the study of alcoholism. 116: 993-1018.
5. Nurnberger JI Jr, et al. A Family study of alcohol dependence: Coaggregation of multiple disorders in the relatives of alcohol-dependent probands. *Arch Gen Psychiat* 2004; 61: 1246-1256.

#### SYMPOSIUM 60—THE MEANINGS OF MEDICATION: ISSUES IN PATIENTS' COMPLIANCE WITH PSYCHOTROPIC DRUGS

American Academy of Psychoanalysis and Dynamic Psychiatry

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to recognize and treat patients' problems with adherence to psychotropic medications. The roles of interpersonal as well as environmental factors will be explored.

No. 60A

#### MEDICATION MANAGEMENT: A CLINICAL MISNOMER

Leah Davidson, M.D. *240 Central Park South, Suite 2P, New York, NY, 10019*

#### SUMMARY:

The philosophical and biological conception of the nature of the human being has traditionally been one based on a "theo-bio-psychosocial" model.

The relationship of these different dimensions between body psyche and interpersonal behavior is highly paradoxical and complex. It is best described metaphorically by Stephen Stahl in his book "Essential Psychopharmacology." Speaking of the blood stream linking them all he refers to it as "God's Pharmacoepia."

The term "medication management" is a truncation of the above holistic process within the patient designed to accommodate split treatment and other bottom line concerns. It is thus neither accurate nor helpful in describing the therapeutic process, or the ongoing patient-therapist dyad with or without medication.

This paper will deal with redefinitions of the roles of the dynamic physician as prescriber, psychotherapist, and healer within the boundaries of the theo-bio-psychosocial model.

It will also cover a definition of "empathy" that includes a psychopharmacologic relationship to "dis-ease" i.e. brain as well as mind.

Transference and countertransference aspects of prescribing will be discussed as they pertain to the topic of the giving of medication. These will include cross-cultural and projective attitudes to oral and other aspects of taking a prescribed drug and/or self medicating. The effect of split treatment and third party interference which undercut



trust and compliance will also be mentioned. The value of educational materials and the effect of educated consumerism on the so-called "placebo effect" and the efficacy of medications will be examined with regard to the term "management."

Finally some alternative descriptive terms for what we do with medication prescription will be suggested for discussion.

#### No. 60B

### COMPLIANCE AS ACCORD, NOT SUBMISSION

Eve Leeman MD 161 Fort Washington Avenue, New York, NY, 10032-3713

#### SUMMARY:

As expressed in the educational objectives, this presentation will focus on an exploration of the etymology of the word compliance, with its complex meanings of accord, agreement and amicable relations, as well as the more subservient implications of accommodation and conformity. Literary examples of these usages will be presented, and analogies drawn to a variety of clinical interactions. The meaning of compliance in the medical setting will be discussed, both in its traditional form, and with a new focus on compliance as an empathic relationship between doctor and patient who are coming together to address the patient's illness.

Power struggles frequently arise between doctor and patient in the therapeutic setting, especially around the issue of medication. These will be elucidated so that they can be recognized and avoided. Common countertransference pitfalls will be reviewed, such as fear that the patient may harm himself, or that the doctor will be perceived as ineffective or irresponsible. Strategies for more successful medication outcomes will be discussed in a variety of clinical circumstances. Patients' ambivalence about taking medicine will also be explored, through the use of clinical examples and a discussion of the principles of motivational interviewing.

#### No. 60C

### TRANSFERENCES TO MEDICATION AND IMPLICATIONS FOR THE STRUCTURE OF THE EGO

Eric R. Marcus, M.D. 4 East 89th Street, New York, NY, 10128-0636

#### SUMMARY:

Case material will be used to show the ego functions that organize transference reactions to medications in mood disorders with and without comorbid personality disorders. These ego dysfunction patterns are illness specific. This information can help guide medication type and dosage as well as psychotherapy.

#### No. 60D

### POISON OR CURE: MEANINGS OF MEDICATION IN SCHIZOPHRENIA

Paul J. Rosenfield, M.D. Columbia University, Psychiatry, 119 W. 57th Street, Suite 620, New York, NY, 10019

#### SUMMARY:

Individuals with schizophrenia have high rates of medication non-adherence, ranging from 40-50%. Factors commonly associated with nonadherence include poor insight and lack of perceived risks of illness, adverse medication effects and lack of perceived benefit of treatment, psychosocial problems such as lack of housing or social support, active substance abuse, and a poor therapeutic alliance with the clinician. Nonadherence increases nearly fivefold the risk of relapse after an initial psychotic episode, and is the main cause of rehospitalization.

We will explore how patients struggle in different ways to make sense of their psychotic experience, how they deal with receiving a diagnosis of schizophrenia, and how they perceive treatment, all of which have significant impact on the acceptance of treatment. The relationship with the prescribing doctor often reflects the patient's capacity to trust and engage in treatment, and plays a central role in shaping the patient's relationship to the illness and medication.

Some patients experience the doctor as a coercive persecutor forcing poison into them, and they flatly reject treatment, while some perceive the doctor as a helpful ally providing relief. Others engage in a dance of deception to appease the demands of the seemingly misguided doctor, pretending to take the medication but cheeking it or avoiding it. And then there are patients who passively keep their distance by forgetting to take the medication, or are unable to remember due to disorganization.

We will reflect on how the attitude of the doctor can impact the patient's acceptance of treatment. A doctor who listens actively, tries to understand both the patient's psychotic experiences and reality-based concerns, empathizes with the patient's struggles, responds to complaints about side effects, addresses obstacles to care, seeks to help the patient reach his or her own goals, and avoids coercion as much as possible is more likely to help a patient adhere to treatment and stay well. There are times, however, when coercion in the form of involuntary commitment and involuntary medication are necessary and essential to the patient's wellbeing.

#### No. 60E

### THE MEANINGS OF MEDICATION: ISSUES IN PATIENTS' COMPLIANCE WITH PSYCHOTROPIC DRUGS: BE CAREFUL WHAT YOU WISH FOR

Jeffrey Rubin MD, M.D. Mount Sinai School of Medicine, Psychiatry, 4 East 89th Street, Suite #1C, New York, NY, 10128-0639

#### SUMMARY:

Compliance can mean a poor outcome. What we do want is collaboration. It is rare for anyone to *want* to take medication. Compliance implies submission to the authority of the prescriber and can invite or re-enforce an adversarial approach to the whole psychotropic transaction. Many people are already quite suspicious of the pharmaceutical industry and, particularly in psychiatry, question the motives of the doctor who does the prescribing. I would postulate that in many cases, the overly compliant patient may be more likely to act out around medication than the overtly skeptical or obviously resistant patient.

In our media based culture, we and our patients are saturated with conflicting reports, exhortations and judgments about medications and those who take and prescribe them. The multiple meanings that medications have for everyone in our society effects treatment adherence and outcomes. I will discuss some of the factors in patients, psychiatrists and the rest of the world that militate for and against effective treatment.

#### REFERENCES:

1. Leslie Lundt M.D. and Marnin Fischbach M.D. Think like a Psychiatrist. Boise, ID, Foothills Foundation.
2. Forrest DV: Elements of Dynamics II: Psychodynamic Prescribing. J Am Acad Psychoanalysis and Dynamic Psychiatry 2004; 32, No2:359-380.
3. Marcus, E.R.: Psychosis and Near Psychosis-- Ego Function, Symbol Structure, Treatment. Madison, Conn. IUP 2003.
4. Day JC: Attitudes toward antipsychotic medication: the impact of clinical variables and relationships with health professionals. Arch Gen Psychiatry 2005; 62:717-724.
5. Book, H. E. Some psychodynamics of non-compliance, Canadian J of Psychiatry, 1987, 32, 115-117.

## SYMPOSIUM 61—PHARMACOGENETICS AND DRUG ABUSE RESEARCH

### National Institute on Drug Abuse

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the symposium the participant should be able to demonstrate a fundamental understanding of recent advances in genetic and pharmacogenetics research, particularly how individual genetic variations, such as single nucleotide polymorphisms, can affect an individual's biological response to both drugs of abuse and pharmacotherapies available for treating substance use disorder including, for example, naltrexone for alcoholism, and nicotine replacement therapies and Bupropion for tobacco dependence

#### No. 61A

### ALLELE SPECIFIC GENE EXPRESSION IN ADDICTION GENES

Wolfgang Sadee *Ohio State University, Dept of Pharmacology, 333 W 10th Ave, 5068 Graves Hall, Columbus, OH, 432101239*

#### SUMMARY:

Wolfgang Sadee, Program in Pharmacogenomics, Department of Pharmacology, College of Medicine, The Ohio State University, Columbus OH.

*Objectives.* We have tested the hypothesis that *cis*-acting variations affecting gene expression and mRNA processing, including splicing, are prevalent in candidate genes as risk factors in addiction susceptibility.

*Methods.* We have implemented a quantitative approach to screening for *cis*-acting polymorphisms, taking advantage of marker polymorphisms in the transcribed region of a candidate gene. By precisely measuring ratios of the two alleles in genomic DNA and in mRNA, one detects allelic expression imbalance revealing the presence of *cis*-acting factors.

*Results.* Applying this approach to autopsied target tissues from multiple individuals, we have measured the frequency and extent of the expression imbalance for multiple genes, including *OPRM1*, *MDR1*, *DRD2*, *AChR4A*, *MAOA*, *SERT*, *COMT*, *TPH2*, and *5-HT2A*. This has revealed a surprising abundance of functional *cis*-acting factors in a majority of the tested genes. The allelic expression ratios were then used to identify functional polymorphisms, and the underlying molecular mechanisms, for *OPRM1* and *MDR1*.

*Conclusions.* These results will permit us to assign functional significance to *cis*-regulatory factors as a guide in clinical association studies of drug addiction.

Supported by NIDA DA018744.

#### No. 61B

### DARWIN'S FINGERPRINT: IDENTIFYING RECENT FUNCTIONAL GENETIC VARIATION IN NEURONAL GENES

Robert K. Moyzis *University of California, Irvine, Department of Biological Chemistry, 240D Med Sci I, Irvine, CA, 92697-1700*

#### SUMMARY:

Using the 1.6 million single nucleotide polymorphism (SNP) dataset from Perlegen Sciences (Hinds et al., 2005), a probabilistic search for the landscape exhibited by positive Darwinian selection was conducted. By computationally sorting each high frequency allele by genotype, the sigmoidal decay of adjacent SNP linkage disequilibrium (LD) at selected alleles was directly calculated, eliminating the need for inferring haplotype. We designate this approach the LD

decay (LDD) test. 1.6% of Perlegen SNPs were found to exhibit the genetic architecture of selection. These results were confirmed on an independently generated dataset of 1.0 million SNPs genotypes (International Human Haplotype Map Phase I freeze). Simulation studies indicate that this novel LDD test effectively distinguishes selection from other causes of extensive LD, such as population bottlenecks and admixture. The approximately 1800 genes identified by the LDD test were clustered according to Gene-Ontology (GO) categories. Based on over-representation analysis, several predominant biological themes are common in these selected alleles, including host-pathogen interactions, reproduction, DNA metabolism/cell cycle, protein metabolism, and neuronal function. We propose that many of these alleles, because of their high prevalence and recent selection, should be considered likely "candidates" for association with the common disorders afflicting humankind.

#### No. 61C

### PHARMACOGENETICS AND SMOKING CESSATION WITH NICOTINE REPLACEMENT THERAPY

Caryn Lerman, Ph.D. *University of Pennsylvania, Department of Psychiatry, 3535 Market Street, Suite 4100, Philadelphia, PA, 19104*, Neal Benowitz, M.D., Peter Shields, M.D., Timothy Rebbeck, Ph.D., Wade H. Berrettini, M.D., Rachel Tyndale, Ph.D.

#### SUMMARY:

The emerging field of pharmacogenetics has the potential to advance the science of nicotine dependence treatment by generating new knowledge about genetic factors that influence therapeutic response. This presentation will review evidence supporting the potential utility of a pharmacogenetic approach to smoking cessation treatment with nicotine replacement therapy (NRT). These data suggest that therapeutic response to NRT is influenced, in part, by functional genetic variation in *COMT* and *OPRM1*, as well as individual variation in nicotine metabolic rate. While independent validation is required, these data suggest that genetic information might be useful in screening smokers to determine likely success with a standard dose of NRT, and to identify those smokers who may require higher doses of NRT or a longer duration of treatment.

#### No. 61D

### PHARMACOGENETICS OF SMOKING CESSATION USING NON-NICOTINE REPLACEMENT THERAPIES

Huijun Z. Ring, Ph.D. *SRI International, Center for Health Sciences, 333 Ravenswood Ave., Menlo Park, CA, 94404*

#### SUMMARY:

Clinical trials have demonstrated the effectiveness of a number of non-nicotine medications for smoking cessation, including bupropion, nortriptyline and clonidine. Substantial inter-individual variations exist in responses to these pharmacotherapies to aid smoking cessation. Genetic variations in components of the brain reward pathways, such as dopamine receptors and transporters, as well as in metabolism have been shown to be significantly linked to treatment response. Further, diverse gene-gene and gene-treatment interactions are present in different human populations. In this presentation, I will review a number of studies where genetic variation has altered quitting outcomes. I will also discuss potential advantages of tailoring smoking cessation treatment according to individual's genetic profile.

No. 61E

**PHARMACOGENETICS OF ALCOHOL TREATMENT**David W. Oslin, M.D. *University of Pennsylvania, Department of Psychiatry, 3535 Market Street, Room 3002, Philadelphia, PA, 19104***SUMMARY:**

**Objectives/Hypotheses:** Acute administration of several drugs of abuse results in release of beta-endorphin (BE) as part of the rewarding aspects of these drugs of abuse. BE binds to the mu opioid receptor, which mediates critical aspects of reward. The mu-opioid gene, OPRM1, has a common functional variant, A118G (Asn40Asp), for which the G allele binds BE with 3-fold greater affinity than the A allele form (Bond 1998). The purpose of this talk is to examine the evidence linking polymorphisms of the mu-receptor to therapeutic outcomes.

**Method:** 71 alcohol dependent patients who were randomized to naltrexone and 59 who were randomized to placebo in one of three randomized, placebo-controlled clinical trials of naltrexone were genotyped for SNPs in the gene encoding the mu-opioid receptor (OPRM1). The association between genotype and drinking outcomes was measured over 12 weeks of treatment.

**Results:** In subjects of European descent, individuals with one or two copies of the Asp40 allele treated with naltrexone had significantly lower rates of relapse ( $p=0.044$ ) and a longer time to return to heavy drinking ( $p=0.040$ ) than those homozygous for the Asn40 allele. There were no differences in overall abstinence rates ( $p=0.611$ ), nor were there differences in relapse rates or abstinence rates between the two genotype groups among those assigned to placebo.

**Discussion/Significance:** These observations suggest that the OPRM1 A118G polymorphism, with a minor (G) allele frequency of ~ 15% among individuals of European origin, can be used to identify persons most likely to respond to specific pharmacologic interventions. The implications of this line of work will be discussed in light of other genes of interest for alcohol dependence.

**REFERENCES:**

1. Zhang Y, Wang D, Johnson AD, Papp AC, Sadée W. Allelic expression imbalance of human mu opioid receptor (OPRM1) caused by variant A118G. *J Biol Chem* 2005; in press.
2. Wang ET, Kodama G, Baldi, P and Moyzis, RK: Global Landscape of Recent Inferred Darwinian Selection for Homo Sapiens. *PNAS*, submitted.
3. Munafò MR, Shields AE, Berrettini WH, Patterson F, Lerman C. Pharmacogenetics and nicotine addiction treatment. *Pharmacogenomics*, 2005; 6(3):211-223.
4. McRobbie H, Lee M, Juniper Z. Non-nicotine pharmacotherapies for smoking cessation. *Respir Med*. 2005; 99: 1203-1212.
5. Oslin DW, et. al.: A Functional Polymorphism of the Mu-Opioid Receptor Gene is Associated with Therapeutic Response in Alcohol Dependent Patients Treated with Naltrexone. *Neuropsychopharmacology* Vol. 28: 1546-52, 2003.

**SYMPOSIUM 62—EATING DISORDERS 2006: FROM SCIENCE TO PRACTICE****EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium, the participant should be able to discuss recent advances in basic and clinical science pertinent to eating disorders and describe the key features of the newly revised practice guidelines for the treatment of eating disorders

No. 62A

**ALTERED DOPAMINE AND OPTIMAL STIMULUS RESPONSE IN ANOREXIA NERVOSA**Walter H. Kaye *University of Pittsburgh School of Medicine, Department of Psychiatry, Pittsburgh, PA, 15213*, Guido K.W. Frank, M.D.,

Angela Wagner, M.D., Ursula Bailer, M.D., Carolyn C. Meltzer, M.D., Julie C. Price, Ph.D., J. Christopher May, B.A., Howard J. Aizenstein, M.D.

**SUMMARY:**

Individuals with anorexia nervosa (AN) tend to have a cluster of stereotypic behaviors including a relentless desire to lose weight, anxious and obsessive thoughts, anhedonia, and increased physical activity. They seem to find little rewarding in life, aside from losing weight. Several lines of evidence support the possibility that disturbances of dopamine (DA) function could contribute to alterations of weight, feeding, motor activity, and reward in AN. To assess possibly trait related disturbances and avoid confounding effects of malnutrition, women who were recovered from AN (REC AN) were compared to healthy control women (CW). Positron emission tomography with [<sup>11</sup>C]raclopride was used to assess DA D2/D3 receptor binding. REC AN had significantly higher [<sup>11</sup>C]raclopride binding potential in the antero-ventral striatum than CW. For REC AN, [<sup>11</sup>C]raclopride binding potential was positively related to Harm Avoidance in the dorsal caudate and dorsal putamen. Because striatal DA systems are implicated in the modulation of salient stimuli, motivation, and reward, we administered an event-related fMRI and guessing game task to study brain responses to monetary gains and losses in REC AN. Preliminary data show different neural processing of reward in REC AN, particularly within the striatum. This may reflect an enhanced anxious response to uncertain stimuli or cognitive strategies related to a focus on details, rather than an overall phenomenon. In summary, DA activity is thought to contribute to achieving an optimal stimulus response, and thus helps individuals make appropriate choices. We hypothesize that the DA system is overactive in AN, resulting in exaggerated stimuli response to salient stimuli. Thus, for individuals with AN, small amounts of food may result in exaggerated DA response, and consequently restricted eating. Similarly, restricted response to other stimuli may explain why individuals with AN are anhedonic and ascetic, and thus able to sustain self denial of food, as well as most comforts and pleasures in life.

No. 62B

**GENDER DIFFERENCE COMPARISONS OF EATING AND OTHER PSYCHIATRIC DISORDERS IN COURSE OF ILLNESS**Katherine A. Halmi, M.D. *Weill Medical College of Cornell University, Department of Psychiatry, 21 Bloomingdale Rd, White Plains, NY, 10605***SUMMARY:**

**Purpose-** Compare gender differences in course of illness between Eating Disorders and other psychiatric illnesses.

**Methods-** A search of literature reports was conducted on sex differences in psychiatric illness, focusing on phenomenology, course, treatment seeking and treatment response.

**Results-** Lifetime prevalence in AN females (F) 0.1% - 0.5%; males (M) .001% - .005%, BN F 1% - 4%; M .05% - .1%, Bipolar F 1%; M 1%, Schizophrenia F 1%; M 1%. Age onset of AN and BN is 2 years later in males than females. Prepubertal boys have higher risk for depression than girls- reverses with puberty. Pathological anxiety rates differ increasingly over time between males and females, greater in the later. OCD is greater in prepubertal males. No gender difference in course of illness for AN or BN. Schizophrenia-women have later onset and course more benign. Bipolar women have more depressive and fewer manic episodes than men. Males with eating disorders have more psychiatric comorbidity (substance use disorders) and psychosocial morbidity than females. Gender does not influence outcome in AN or BN. Males require higher energy intakes during refeeding due to higher lean body mass. All mentally ill female diagnoses have higher rates of mental health services

than men. Females differ from males in pharmacokinetics across diagnoses, e.g. women have lower CYP1-A activity.

Conclusion- Gender differences in eating disorders have more similarities to those in depression and anxiety disorders compared to schizophrenia.

#### No. 62C

### FEDERAL ADVOCACY FOR EATING DISORDERS

David B. Herzog, M.D. *Massachusetts General Hospital, Department of Psychiatry, Boston, MA, 02114*, Debra L. Franko, Ph.D., Jeanine C. Cogan, Ph.D., Marc Lerro, M.L.A., Cynthia M. Bulik, Ph.D., Elizabeth Q. Ong, B.A., Kavita K. Tahilani, B.S.

#### SUMMARY:

Eating disorders constitute an important public health concern, with substantial prevalence, disturbing emotional and social consequences, and high rates of suicide and mortality. Health insurance companies rarely reimburse fully for their health care costs, making access to treatment difficult. The Eating Disorders Coalition for Research, Policy, and Action (EDC) was founded in 2000 to address the growing need for advocacy and education about the health risks and social costs of Anorexia Nervosa and Bulimia Nervosa. The EDC consists of 26 eating disorder and related organizations. It has assisted in writing language for and supported a number of significant bills in Congress over the last few years: the Promoting Healthy Eating Behaviors in Youth Act of 2002; the Improved Nutrition and Physical Activity Act of 2003 and 2005; and the Paul Wellstone Mental Health Equitable Treatment Act, which prohibits certain health plans from imposing mental health treatment limitations or financial requirements unless comparable limitations are placed on other aspects of health care. The EDC serves as a model organization, exemplifying collaboration in advocacy leading to greater recognition of eating disorders as a serious public health problem, improved access to care and increased federal funding for research.

#### No. 62D

### NIGHT EATING SYNDROME

James E. Mitchell III, M.Ed. *Fargo, ND, 58107*, Ross D. Crosby, Ph.D., Stephen A. Wonderlich, Ph.D., Scott Engel, Ph.D., Albert J. Stunkard, M.D., Kelly Allison, Ph.D.

#### SUMMARY:

Night eating syndrome, which was first described by Stunkard in 1955, is a construct still in the process of evolution. Different criteria sets are used in different research studies but they generally include evening hyperphagia, insomnia, morning anorexia, and feeling tense, upset or anxious as bedtime nears. What little epidemiological data are available suggests that night eating syndrome affect 1-2% of those in the general population and a much higher percentage of those in weight loss samples and pre-bariatric surgery sample. There appears to be some overlap between night eating syndrome and the nocturnal eating and drinking syndrome, a dysomnia in the classification of sleep disorders, and nocturnal sleep related eating disorder wherein subjects eat during the night with reduced levels of awareness, also a sleep disorder. This presentation will focus on several datasets: 1) An interview study (n = 62) of night eaters. Data from the study were used in a factor and a cluster analysis. 2) An ecological momentary assessment study of a subset of 15 individuals who self-monitored using Palm Pilots and 3) An item response theory analysis of 1479 individuals who completed night eating questionnaires. This revealed that reports of nocturnal eating and/or hyperphagia, initial insomnia and night awakenings showed high precision in discriminating those with night eating syndrome, while morning anorexia and delayed morning meal provided little additional information.

#### No. 62E

### THE 2006 APA PRACTICE GUIDELINES FOR EATING DISORDERS

Joel Yager, M.D. *University of New Mexico, School of Medicine, Department of Psychiatry, Department of Psychiatry/MS09 5030, 1 University of New Mexico, Albuquerque, NM, 87131-0001*, Michael J. Devlin, M.D., Katherine A. Halmi, M.D., David B. Herzog, M.D., James E. Mitchell III, M.Ed., Pauline Powers, M.Ed., Kathryn J. Zerbe, M.D.

#### SUMMARY:

The American Psychiatric Association has recently completed the third revision of its practice guidelines for eating disorders, published in May 2006. The new edition incorporates the findings of a substantial amount of updated evidence-based research and clinical experience. Feedback from scores of psychiatrists, internists, pediatricians, psychologists, registered dietitians, social workers and others involved in the assessment and treatment of patients with anorexia nervosa, bulimia nervosa, binge eating disorder and other eating disorders, as well as perspectives of a large international group of clinical researchers has been assessed and integrated into the revision. Substantial changes have been made regarding guidance concerning specific treatment strategies, determinations of appropriate settings of care and other aspects of contemporary practice. Additional distinctions are offered for recommendations suitable for children and adolescents as well as for adults. This presentation will highlight key features of the executive summary and detail some of the many updated treatment recommendations.

#### REFERENCES:

1. Frank GK, Bailer UF, Henry SE, Drevets W, Meltzer CC, Price JC, Mathis CA, Wagner A, Hoge J, Ziolko S, Barbarich N, Weissfeld L, Kaye WH. Increased dopamine D2/D3 receptor binding after recovery from anorexia nervosa measured by positron emission.
2. Hoek HW, Hoeken D, Katzman M: Epidemiology and cultural aspects of eating disorders. In *Eating Disorders*, edited by Maj M, Halmi K, Lopez-Ibor J, Sartorius N, Chichester, England, John Wiley & Sons, Ltd., 2003, pp75-138.
3. Cogan J C, Franko DL & Herzog D B: Federal advocacy for anorexia nervosa: An American model. *Int J Eat Disord* 2005; 37 Suppl 1:S101-2.
4. 288. de Zwaan M, Roerig D, Crosby RD, Karay S, Mitchell JE. Night-time eating: A descriptive study. *Int J Eat Disord*, in press.
5. American Psychiatric Association Treatment Guideline for the Treatment of Patients with Eating Disorders, 3rd revision. in *American Psychiatric Association Practice Guidelines for the Treatment of Psychiatric Disorders, Compendium 2006*, APPI Press.

### SYMPOSIUM 63—VASCULAR DEPRESSION: MEASUREMENT AND TREATMENT ISSUES OF A PROPOSED DIAGNOSTIC ENTITY

#### EDUCATIONAL OBJECTIVES:

At the the conclusion of the symposium, the participant should be aware of critical issues in developing diagnostic criteria for late-life psychiatric entities, in particular, vascular depression. The participant will be able to recognize measurement issues that contribute to the difficulty in defining this proposed entity (e.g., what is the age cut-off for late-onset depression?). The participant will be able to demonstrate an understanding of the most up-to-date approaches to defining and measuring executive dysfunction (neuropsychology) and cerebrovascular disease (neuroimaging). Participants will also be able to recognize how these issues affect treatment and novel

treatment approaches for vascular depression such as rTMS will be addressed.

### No. 63A

#### VASCULAR RISK FACTORS, FRONTOLIMBIC DYSFUNCTION, AND COURSE OF GERIATRIC DEPRESSION

George S. Alexopoulos *Weill Medical College of Cornell, Department of Psychiatry, na, White Plains, NY, 10605*

##### SUMMARY:

Peripheral risk factors are associated with high incidence of depression. In an attempt to explain this association, the "vascular depression" hypothesis postulates that vascular risk factors promote cerebrovascular disease, which in turn impairs frontolimbic circuitry and increases propensity to depression. Frontolimbic abnormalities have been demonstrated in at least some elders with major depression. Impairment in working memory and executive functions, the clinical expression of frontolimbic abnormalities, occurs in a large percentage of elders with major depression and persists even after improvement of the depressive syndrome. Patients with depression and executive dysfunction present psychomotor retardation, anhedonia, pronounced behavioral disability, and limited depressive ideation, a presentation resembling medial frontal lobe syndrome. Structural neuroimaging studies have demonstrated hyperintensities in subcortical structures and reduced volume of the anterior cingulate, the subgenual region, and the orbito-frontal cortex in geriatric depression while a declining volume of the amygdala has been found in recurrent depression. Finally, stimulated functional neuroimaging studies have shown hypoactivation of the dorsal anterior cingulate.

Frontolimbic dysfunction and vascular impairment are associated with poor outcomes of geriatric depression. Abnormal executive functions, the clinical expression of frontolimbic dysfunction, as well as vascular risk factors predict poor or slow response of geriatric depression to antidepressants. Electrophysiological studies show that high amplitude of error negative waves elicited after probes of the perigenual (emotional go-no-go) and the dorsal anterior cingulate (Stroop Color-Word) are associated with poor response to antidepressants. Subcortical hyperintensities, principally contributed by vascular impairment, are also associated with chronicity of depression. Finally, diffusion tensor imaging studies documented that microstructural abnormalities in regions of frontolimbic networks are associated both with vascular risk factors and executive dysfunction, and predict poor response to citalopram. Taken together, these findings suggest that vascular risk factors and frontolimbic abnormalities are associated with persistent depressive symptoms as well as executive dysfunction.

### No. 63B

#### TREATMENT OF VASCULAR DEPRESSION INCLUDING NEW DATA ON RTMS

Robert G. Robinson, M.D. *The University of Iowa College of Medicine, Department of Psychiatry, 200 Hawkins Dr, 2887 JPP, Iowa City, IA, 52242, Ricardo E. Jorge, M.D.*

##### SUMMARY:

Patients (n=20) greater than age 50, with evidence on MRI scan of vascular brain disorder and a history of depression which failed to respond to at least 2 trials of antidepressants were entered into a double-blind treatment trial of rTMS versus sham stimulation. Patients were given 2 weeks of treatment at 10 Hz with 5 sec of stimulation at 110% of motor threshold for 20 stimulations over the left prefrontal cortex. One week following treatment, 30% of the

active group and 0% of the sham, 90 degree angled off the skull, responded to treatment. One patient remitted in the active group. There was also a significantly greater reduction in Hamilton depression scores in the active compared with sham treated patients. Successful treatment was associated with greater volume of the left frontal grey and white matter. These data suggest that rTMS may be a significant treatment alternative in patients with refractory vascular depression.

### No. 63C

#### NEUROIMAGING OF CEREBROVASCULAR DISEASE

David C. Steffens, M.D. *Duke University, Department of Psychiatry, 111 South Highland, Durham, NC, 27710*

##### SUMMARY:

Over the past decade advances in neuroimaging have allowed investigators greater access to brain structure and function. Neurobehavioral researchers including psychiatrists, neurologists and neuropsychologists have used neuroimaging technology to further our understanding of the brain and to understand the role of cerebrovascular change in behavioral and neuropsychiatric disorders. In this session, we will provide an update on technological advances and in the methodology to assess vascular brain changes. We will review recent advances in the neuroimaging of vascular behavioral and psychiatric syndromes. In particular, he will highlight the role of "silent" cerebrovascular disease in affective disorders, apathy states, and disinhibition. The effects of vascular change on cognitive, functional and mood outcomes in depressed patients will be discussed. In addition, we will review the role of focal cortical and subcortical stroke in behavioral and psychiatric disorders. Here he will focus on findings in the area of localization and laterality of stroke.

### No. 63D

#### VASCULAR DEPRESSION: A DISTINCT DIAGNOSTIC ENTITY?

Joel R. Sneed, Ph.D. *Columbia University, Biological Psychiatry, 1051 Riverside Drive Department of Biolo, Unit 98, NY, NY, 10032, Steven P. Roose, M.D.*

##### SUMMARY:

The validity of the vascular MDD subtype has been based on studies of external (concurrent and predictive) validity. Attempting to establish the validity of a diagnostic entity on the basis of external validators is problematic because it presupposes that the construct is well-defined (i.e., the proposed features cluster together to define a distinct patient group). Since such evidence has yet to be garnered, we propose that the next critical step in the evolution of this subtype is to establish internal (construct) validity. We highlight a number of multivariate statistical techniques that can be used to aid in this effort including taxometric analysis and latent class cluster analysis. The psychometric approach advocated here (despite its inherent assumptions and limitations) may substantially improve on previous diagnostic efforts (e.g., expert consensus) and vascular depression may serve as a potential prototype for future psychiatric classification. At the conclusion of this symposium, the participant will be able to recognize the controversies that exist in defining vascular depression, understand the difference between internal and external construct validity, and appreciate the necessary sequence that needs to be followed in order to validate a late-life diagnostic entity.

##### REFERENCES:

1. Alexopoulos, GS: Role of executive dysfunction in geriatric depression. *J Clin Psychiatry* 2003; 64: 18-23.

2. Jorge RE, Robinson RG, Tateno A, Narushima K, Acion L, Moser D, Arndt S, Chemerinski E. Repetitive transcranial magnetic stimulation as treatment of poststroke depression: a preliminary study. *Biol Psychiatry* 55:398-405, 2004.
3. Journal Article - Steffens DS: Establishing diagnostic criteria for vascular depression. *J Neurol Sci.* 2004 Nov 15;226(1-2):59-62.
4. Kales, HC, Maixner, DF, Mellow, AM: Cerebrovascular disease and late-life depression. *American Journal of Geriatric Psychiatry* 2005; 13: 88-98.

## SYMPOSIUM 64—DEEP BRAIN STIMULATION FOR TREATMENT-RESISTANT PSYCHIATRIC DISORDERS

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to: 1. identify the historical antecedents and ethics of psychiatric applications of deep brain stimulation (DBS) 2. identify the potential psychiatric indications for DBS 3. demonstrate an understanding of the current research into the use of DBS in psychiatric populations 4. demonstrate an understanding of the brain neurocircuitry targeted by DBS 5. demonstrate familiarity with the neurosurgical procedure of DBS

### No. 64A

#### HISTORY AND ETHICS OF NEUROSURGERY FOR TREATMENT-REFRACTORY PSYCHIATRIC DISORDERS

George E. Tesar, M.D. *Cleveland Clinic Foundation, Psychiatry & Psychology, 9500 Euclid Avenue, Cleveland, OH, 44195*

#### SUMMARY:

During the 20<sup>th</sup> century two Nobel prizes were awarded for novel treatments - fever therapy and psychosurgery - aimed at neuropsychiatric illness. The enthusiasm that attended these developments - perhaps difficult to appreciate today - was due in part to unprecedented, rapid growth in the numbers of hospitalized chronic mentally ill for whom there were few effective treatments. Fever therapy and psychosurgery constituted medical breakthroughs that offered the hope of a better quality of life for some of these individuals.

In the U.S., Walter J. Freeman enthusiastically championed psychosurgery, the term coined by Egaz Moniz. Following the first U.S. frontal lobotomy performed in 1936 by Freeman and his neurosurgical colleague, James W. Watts, similar procedures were performed at numerous locations across the country, including major academic medical centers. The rationale for performing a procedure for which there was little or no systematic evidence base was the same as it is today: it offered hope of a better life for individuals with illnesses that caused permanent disability, sustained risk of harmful behavior, and premature death. Remarkably, a significant minority benefited, but unacceptable treatment-related morbidity and continuing controversy about the efficacy and ethics of lobotomy brought it to a halt in the early 1960s.

Several important events revived neurosurgical treatment for intractable psychiatric illness. One was the introduction in 1947 of human stereotactic techniques, and the other was the 1974 report of the US National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The first improved the safety, precision and efficacy of lesioning techniques and the second led to unprecedented policy recommendations concerning human subject's research.

The most recent advance has been the use of deep brain stimulation (DBS). First used and FDA-approved for refractory Parkinson's disease, stereotactic deep brain electrode implantation was first used for refractory OCD by Belgian neurosurgeon Bart Nuttin and col-

leagues. More recently, interdisciplinary teams of psychiatrists, neurosurgeons and neuroscientists at Brown University and the Cleveland Clinic Foundation have partnered with the Belgian group to investigate the use of DBS not only for refractory OCD, but also refractory Major Depression. Recognition of the experimental nature of DBS for psychiatric disorders is crucial so that empiric, unregulated use does not occur. In the future, while we are quite likely to look back upon DBS as an unnecessarily invasive therapeutic prototype, every effort must be made to ensure that it is not remembered as a heroic procedure, like lobotomy, whose application was guided principally by hubris and therapeutic zeal.

### No. 64B

#### DEEP BRAIN STIMULATION SURGERY FOR TREATMENT OF INTRACTABLE PSYCHIATRIC DISORDERS

Ali R. Rezaei, M.D. *Cleveland Clinic Foundation, Center for Neurological Restoration, 9500 Euclid Avenue, Desk S31, Cleveland, OH, 44195*, Donald A. Malone, Jr., M.D., Steven A. Rasmussen, M.D., Cynthia Kubu, Ph.D., Gerhard Friehs, M.D., Andre Machado, M.D., Benjamin D. Greenberg, M.D.

#### SUMMARY:

Title: Deep Brain Stimulation (DBS) Surgery for movement and psychiatric disorders: brain targets, procedure and complications

Deep Brain Stimulation (DBS) surgery is now FDA approved for treatment of movement disorders such as intractable Parkinson's disease, essential tremor and dystonia. There have been over 35,000 DBS implants worldwide and emerging applications are rapidly developing. This includes DBS for intractable epilepsy, cluster headaches, chronic pain, Tourette's, OCD and depression. The inherent reversible and adjustable features of DBS offers improved safety and adaptability profile as compared to the destructive/lesioning approach. In this presentation, the rationale for targets selection for movement and psychiatric disorders will be presented. An overview of the surgical procedure, implantable device components, long-term outcome and complications will be provided for movement disorders. We will also present our five year experience with DBS surgery for intractable OCD and major depression.

### No. 64C

#### DBS FOR OCD: TARGETING AND CLINICAL RESULTS

Benjamin D. Greenberg, M.D. *Butler Hospital, Brown Medical School Department of Psychiatry and Human Behavior, 345 Blackstone Blvd., Providence, RI, 02906*

#### SUMMARY:

Deep brain stimulation (DBS) is the most focal method for stimulation of the human brain. It is established as a useful adjunct therapy for severe, medication-resistant movement disorders. It remains an investigational treatment for other neurological conditions and in psychiatry. In movement disorders, DBS targets are based on those of earlier lesion procedures and on knowledge of anatomical networks thought to be involved in illness pathophysiology. In contrast to earlier neurosurgical techniques sometimes used in severe and treatment-resistant psychiatric illness, DBS is nonablative, offering the advantages over previously available neurosurgical treatments of reversibility and adjustability. The adjustable quality of DBS permits therapeutic effectiveness to be enhanced or stimulation-related side effects to be minimized. It also permits controlled studies. Preclinical and clinical studies have shown effects of DBS on brain regions functionally connected to the target of stimulation. Although its mechanism(s) of action are not fully elucidated, several effects have

been proposed to underlie the therapeutic effects of DBS in movement disorders, and potentially in other conditions as well. Understanding the mechanisms of action of DBS is the current focus of a number of clinical and preclinical laboratories. Experience to date suggests that DBS may have potential to offer a degree of hope for patients with severe and treatment-resistant neuropsychiatric illness. The most data are available for obsessive-compulsive disorder (OCD), with consistently positive results across multiple smaller-scale studies. Further development of DBS for these illnesses will require a major commitment of resources across disciplines including psychiatry, neurosurgery, neurology, neuropsychology, bioengineering, and bioethics. Investigations into new therapeutic indications for DBS should proceed cautiously.

No. 64D

### **DEEP-BRAIN STIMULATION IN PSYCHIATRIC DISORDERS: SURGICAL CANDIDATES AND PRELIMINARY RESULTS IN MAJOR DEPRESSION**

Donald A. Malone, Jr., M.D. *Cleveland Clinic Foundation, 9500 Euclid Avenue, Desk P57, Cleveland, OH, 44195-0001*

#### **SUMMARY:**

This presentation will be a brief discussion of which patients are potential candidates for the surgical treatment of psychiatric disorders. It will focus on interventions for Obsessive-Compulsive Disorder (OCD) and Major Depressive Disorder (MDD) since surgical procedures have primarily been limited to these diagnoses. There are several overriding principles though, that would be relevant to other disorders in the future. The importance of selecting appropriate candidates for these procedures can not be overestimated. There will also be a presentation of preliminary data on 8 patients undergoing DBS treatment for refractory Major Depression.

Basic principles that should guide the selection of candidates include: accurate diagnosis, sufficient severity of illness, nonresponse to known effective treatment options, and ability to provide informed consent. Accurate diagnosis must be made in order to allow the results of these investigational procedures to be useful in generalizing possible success to future patients. It is also critical in determining which patients may not respond so well. Excessive comorbidity of either psychiatric or medical conditions may also affect this issue. Currently, it is felt that patients undergoing surgical procedures for psychiatric disorders should have a fairly severe level of illness and functional impairment. Given the inherent risks of neurosurgery combined with the investigational nature of the procedures, the risk/benefit ratio at present would argue in this direction. This view may change as more is known about illness and response. It may turn out, for example, that performing the procedure earlier in the course of the illness may produce the best response. Patients should have exhausted all reasonable attempts at treatment with those interventions known to be effective in their illness. At this point it is not ethical to introduce an investigational treatment with potential risk in place of other options with better defined risk/benefit ratios. An exception to this may be in a patient who was unable to tolerate standard interventions due to side effects or other reasons. Only patients who are able to provide informed consent are eligible for our current studies. Specific entrance criteria for these studies will be reviewed.

To date, 8 patients with refractory MDD have been implanted at Brown University (5) and the Cleveland Clinic Foundation (3). The target for these procedures was the ventral aspect of the anterior limb of the internal capsule. Of the six patients stimulated for at least 9 months, 4 have had a greater than 50% reduction in their Montgomery-Asberg Depression Rating Scale (MADRS) score. There were no serious adverse events. Symptomatic improvement was accompanied by functional improvement as well. When stimulation is interrupted, symptoms will typically return. Each of these

patients received postoperative fMRI scanning which demonstrated activation of brain areas thought to be involved with connections from the ventral capsule.

#### **REFERENCES:**

1. El-Hai J: The Lobotomist.
2. Kopell BH, Greenberg B, Rezaei A: Deep Brain Stimulation for Psychiatric Disorders. *J Clin Neurophysiol* 2004;21: 51-67.
3. Greenberg BD, Nahas Z, Carpenter LL. Current status of deep brain stimulation. *Primary Psychiatry*, in press (October 2005).
4. The OCD-DBS Collaborative Group: Deep Brain Stimulation for psychiatric disorders. *Neurosurgery* 2002;51(2):519.

### **SYMPOSIUM 65—COMPLEX DEPRESSION: THE INTERFACE BETWEEN PERSONALITY DISORDERS AND MAJOR DEPRESSION**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: 1. Be familiar with neurobiological advances that link personality dimensions to the course of depressive illness. 2. Appreciate the role of personality variables as risk factors and matching variables for treatment response. 3. Recognize indications for antidepressant, atypical antipsychotic and anticonvulsant medications in addition to practical psychotherapeutic interventions in the treatment of complex depression

No. 65A

### **THE NEUROBIOLOGY OF THE LINKS BETWEEN PERSONALITY TRAITS AND DEPRESSION**

Glenda M. MacQueen *McMaster University, Department of Psychiatry, 1200 Main Street West, Hamilton, ON, L8N 3Z5, Canada*

#### **SUMMARY:**

Tryptophan depletion is used to study serotonin system-related mechanisms in the pathophysiology of depression as tryptophan depletion selectively affects serotonergic transmission. A recent study found that levels of brain derived neurotrophic factor (BDNF) increased in serum of healthy volunteers during tryptophan depletion. BDNF levels remained low in patients with remitted major depressive disorder, suggesting that they were unable to mount a compensatory response. BDNF is important for neuronal integrity, is low in patients with depression and appears to normalize with treatment. Serotonin, noradrenaline and BDNF may all regulate neurogenesis, and it has been proposed that increasing neurogenesis in the hippocampus may be critical for antidepressant activity. Thus serotonin and BDNF are widely implicated in the pathophysiology and treatment of depression. A putative relation between the serotonin transporter gene polymorphism and stable personality traits that may confer vulnerability to depression is more controversial, however. This presentation will review recent preclinical and clinical studies on the role of serotonin and BDNF in the pathophysiology of depression, with particular reference to the current debate about the genetics of personality traits that may be vulnerability factors for depression and anxiety.

No. 65B

### **PATIENT PERSONALITY AS A DIFFERENTIAL PREDICTOR OF TREATMENT OUTCOME TO PSYCHOTHERAPY VERSUS PHARMACOTHERAPY**

R. Michael Bagby, Ph.D. *Ctr. Addiction and Mental Health; Department of Psychiatry, University of Toronto, Clinical Research, 250*

College street, Toronto, ON, M5T 1R8, Canada, Carolina McBride, Ph.D.

#### SUMMARY:

Psychiatrists have an array of medications and at least two empirically established evidenced-based psychotherapies for treating major depression. Despite this availability many patients do not respond to treatment. One possible approach to maximize the effectiveness of treatments is to match personality style to treatment type. Drawing upon data from both randomized and non-randomized treatment trials, this presentation will delineate several dimensional personality traits that are stable differential predictors of treatment outcome to three types of treatment for major depression: medication, interpersonal psychotherapy, and cognitive-behavioral psychotherapy.

No. 65C

#### MANAGING PATIENTS WITH COMPLEX DEPRESSION

Sidney H. Kennedy, M.D. *UHN, Department of Psychiatry, 200 Elizabeth Street, EN8-222, Toronto, ON, M5G 2C4, Canada*

#### SUMMARY:

There is extensive evidence that Major Depressive Disorder (MDD) represents a heterogeneous group of disorders - at the level of symptom presentation, functional impairment, brain circuitry and treatment response. Comorbidity between MDD and Personality Disorder - "complex depression," occurs in up to 50% of outpatients attending mood disorder clinics and has been evaluated as both a negative and a positive predictor of outcome. The etiological relationship between early trauma, genetic risk and personality has been recognized. Hence, personality dimensions may influence various aspects of depression and its treatment including adherence and response. The relatively sparse evidence to recommend antidepressant, atypical antipsychotic and mood stabilizer agents in patients with "complex depression" will be reviewed. Personality Disorders appear more frequently in patients with chronic depression, particularly those with early onset, who may also be more likely to have experienced childhood trauma. Since brain changes, including reduction in hippocampal volume, are associated with chronicity of illness, it remains to be established whether remission and restoration of neurogenesis and neuroplasticity is readily achievable in patients with "complex depression."

No. 65D

#### KEY PSYCHOTHERAPY ISSUES IN COMPLEX DEPRESSION: PATIENTS WITH MAJOR DEPRESSION AND PERSONALITY PSYCHOPATHOLOGY

Michael B. Rosenbluth, M.D., *Toronto East General, Department of Psychiatry, 825 Coxwell Avenue, Toronto, ON, M4C 3E7, Canada*

#### SUMMARY:

This presentation will outline key assessment and psychotherapy issues in patients with Major Depressive Disorder with comorbid personality psychopathology.

Different models of the relationship between personality traits, disorders and depression will be presented. The clinical implications of these models will be reviewed specifically with regard to the assessment phase. How chronic states affect traits will be explored. The clinical importance of distinguishing between a primary personality disorder with comorbid depression, versus chronic depression which may cross-sectionally appear and be misdiagnosed as a personality disorder, will be reviewed. The concept of personality states as a "scar" resulting from recurrent, refractory depression will be presented. Psychotherapeutic implications of these different person-

ality presentations re: goals of therapy, therapeutic alliance, and countertransference will be reviewed.

Personality dimensions and how they contribute to, or diminish, the working alliance in individuals with personality pathology and depressive disorder will be reviewed.

The presentation will also overview key psychotherapy challenges in working with patients with personality pathology and comorbid depressive disorder. Clarifying and managing acute versus chronic suicidality; clarifying expectations; strategies for identifying comorbid PTSD issues, and staging of psychotherapy to deal effectively with trauma issues; ways to identify, understand and utilize countertransference; the importance of maintaining adaptive functioning and avoiding regression; and methods of nurturing strengths in this often demoralized and dispirited population, will be reviewed.

Clinicians attending this presentation should be more confident about key assessment and psychotherapeutic challenges in working with patients with comorbid affective disorders and personality psychopathology.

#### REFERENCES:

1. Munafo MR, Clark T, Flint J. Does measurement instrument moderate the association between the serotonin transporter gene and anxiety-related personality traits? A meta-analysis. *Mol Psychiatry*. 2005 Apr;10(4):415-9.
2. Widiger, T.A. (2005). Five-factor model of personality disorder: Integrating science and practice. *Journal of Research in Personality*, 39, 67-83.
3. Kennedy SH, Farvolden P, Cohen NL, Costa PTJr, Bagby RM. The impact of personality on the pharmacological treatment of depression. In M Rosenbluth, SH Kennedy & RM Bagby (eds.). *Depression and Personality*. American Psychiatric Publishing Inc: W.
4. Zaretski, A, Rosenbluth, M, Silver D, Clinical strategies to efficiently treat Major Depressive Disorder complicated by Personality Disorder In "Depression and Personality; Conceptual and Clinical Challenges" edited by Rosenbluth, M, Kennedy, S, Bagby.

### WEDNESDAY, MAY 24, 2006

#### SYMPOSIUM 66—RISK FACTORS, PERSONALITY VARIABLES, AND ADDICTIVE DISORDERS

#### Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to appreciate the role of different risk factors and personality variables associated with addictive disorders

No. 66A

#### RISK FACTORS FOR ADDICTIVE DISORDERS

Maurice Corcos, Ph.D. *Institut Mutualiste Montsouris, Service de Psychiatrie, 42 Boulevard Jourdan, Paris, 75014, France*, Martine Flament, M.D., Fernando Perez-Diaz, M.D., Olivier Halfon, M.D., François Lang, M.D., Paul Bizouard, Ph.D., Jean-Luc Venisse, M.D., Philippe Jeammet, Ph.D.



**SUMMARY:**

Objective: Many common risk factors have been described in addictive disorders. Little is known about their respective contributions to the discrimination between addictive and healthy subjects.

Methods: We compared two large samples including 513 healthy subjects and 374 addictive subjects meeting the DSM-IV criteria of eating disorders, alcohol or substance dependence. Twenty-six risk factors were assessed by interview or self-rating scales. A discriminant analysis determined the respective weight of each risk factor.

Results: One discriminant function emerged and characterized a depressive dimension.

Conclusions: The results suggest that the different risk factors described in addictive disorders were secondary to a depressive dimension. Using notably a psychoanalytic point of view, the relationships between these depressive dimension and the addictive disorders were discussed.

**No. 66B****DEPENDENCY AND SUICIDALITY IN ADDICTIVE DISORDERS**

Gwenole Loas, M.D. *Hopital Pinel, Service Universitaire de Psychiatrie, 80044 Amiens cedex, Amiens, 80044, France*

**SUMMARY:**

Excessive interpersonal dependency has been described in depression and addictive disorders. Moreover excessive dependency and suicidality are linked in psychiatric subjects but their relationships have not been studied in specific addictions. Separate samples of female anorectic patients (n = 150), female bulimic patients (n = 95), male (n = 150) or female (n = 68) alcoholics, male (n = 94) or female (n = 54) drug abusers as well as non-psychiatric control subjects (n = 683) were included in the study. Using structured interview, suicidal ideations, number of previous suicide attempts and diagnoses of dependent personality disorder (DSM-IV) were collected and the subjects filled out the Interpersonal dependency Inventory and the Beck depression Inventory. Logistic regressions were used. Excessive dependency and notably dependent personality disorder increased the likelihood of suicidal ideation or suicide attempts with a range of 2.65 to 9.42 in bulimic, female alcoholics and male drug abusers. Excessive dependency in specific addictive disorders as well as in male non-psychiatric subjects could constitute a risk factor of suicide. This hypothesis must be confirmed using prospective studies.

**No. 66C****DEPRESSIVE PSYCHOPATHOLOGY IN ADDICTIVE DISORDERS**

Mario Speranza, M.D. *Centre Hospitalier de Versailles, Service de Psychiatrie Infanto-Juvenile, 1 rue richaud, versailles, 78000, France, Maurice Corcos, Ph.D., Frederic Atger, M.Eng., Gwenolé Loas, M.D., Philippe Jeammet, M.D.*

**SUMMARY:**

Purpose: The aim of this presentation is to explore the diagnostic specificity of the self-critical and dependent depressive experiences in a clinical sample of addictive patients. Method: The participants in this study were gathered from a european collaborative study on addictive behaviours ("Addictive Network" INSERM n° 494013). A sample of 564 patients of both genders (149 anorexics, 84 bulimics, 208 alcoholics, 123 drug addicts) with a mean age of  $27.3 \pm 8$  years and 518 matched controls were assessed with the *Depressive Experience Questionnaire* and with the *Beck Depression Inventory*. Subjects presenting a DMS-IV Major Depression or a second comorbid addictive disorder were excluded from the sample using the Mini

International Neuropsychiatric Interview. Results: Addictive patients showed significant higher levels of dependent and self-critical depressive symptoms compared to the control subjects. Eating disordered and alcohol addicted patients had the highest scores among the addicted group. Among eating disorders, bulimic patients scored significantly higher than anorexic patients on self-criticism. Finally, self-critical depressive symptomatology was a significant predictors of addictive disorders in a logistic multiple regression. Conclusion: This study supports the diagnostic specificity of the dependent and self-critical depressive dimensions in addictive disorders and strengthens previous research on the role of depressive experiences in the development of these disorders.

**No. 66D****SENSATION SEEKING AND ADDICTIVE DISORDERS**

Alexandra Pham-Scottet *CMME, Department of Psychiatry, Paris, 75674, France, Fernando Perez-Diaz, M.D., Solange Carton, M.D., Julien-Daniel Guelfi, Ph.D., Philippe Jeammet, Ph.D., Maurice Corcos, M.D.*

**SUMMARY:**

Purpose: The aim of this study was to compare the Sensation Seeking dimension in different types of addictive disorders (alcohol, drugs, eating disorders).

Design: Participants to this multisite collaborative study were patients from France, Switzerland, and Belgium (218 alcoholics, 194 drug addicts and 249 eating disorders) and 601 healthy controls (matched for age and sex).

All participants answered the Sensation Seeking Scale (Zuckerman, 1978). Many other variables (demographic data, comorbidity, Beck Depression Inventory scores) were collected.

Results: Addictive patients reported significant higher Sensation Seeking scores than control groups. Drug addicts scored higher than alcoholics, and alcoholics higher than eating disorders. In all groups, Sensation Seeking scores correlated with the intensity of the dependence and the early onset of the disorder. Comorbidity did not influence Sensation Seeking scores.

Conclusion: High Sensation Seeking is significantly associated with addictive disorders. The nature of the relationship between Sensation Seeking and addictive behaviors will be discussed.

**No. 66E****ADDICTIVE DISORDER: GOODMAN'S CONCEPT OF ADDICTION, A STUDY OF 692 ADDICTIVE SUBJECTS**

Ludovic A. Gicquel, Ph.D. *Institut Montsouris, Department of Psychiatry, 42, boulevard Jourdan, Paris, 75014, France, Fernando Perez-Diaz, M.Eng., Gwenolé Loas, M.D., Maurice Corcos, Ph.D., Aviel Goodman, Ph.D., Julien-Daniel Guelfi, Ph.D., Philippe Jeammet, Ph.D.*

**SUMMARY:**

Background: In 1990, Goodman created a theoretical DSM entity, a transnosographic reorganisation, the Addictive Disorder (A.D) based on the hypothesis of an addictive process and its symptoms, addictive disorders.

Objective: The aim of this study was to examine the factor structure of A.D in 692 acutely addicted patients, male and female, presenting substance dependence, alcohol dependence and eating disorders.

Results: 339 (49 %) met criteria for A.D and the main clinical subgroup concerned was bulimic one (70.5 %). Components factor analysis on A.D criteria produced a general factor (27 % of the variance). Cronbach's alpha was 0.67, suggesting adequate internal

consistency. A second factor (16.7 % of the variance) opposed criterion D (lack of control) to C (pleasure or relief). Eating disordered women (mainly bulimic vs. anorexic ones,  $p < 0.05$ ) were in a "lack of control way" and substance dependence women (mainly drug dependence vs. alcohol dependence ones,  $p < 0.05$ ) were more in a "pleasure or relief way".

Discussion: Results confirmed an internal consistency to this reorganisation with a general factor, potentially addictive one. Moreover, those criteria are available both with substance and behavioral addictive disorders confirming by this way the transnosographic aim of A.D.

#### REFERENCES:

1. Speranza M, Corcos M, Loas G, Stephan P, Guilbaud O, Perez-Diaz F, Halfon O, Bizouard P, Venisse JL, Flament M, Jeammet P : Alexithymia, depressive experiences and dependency in addictive disorders. *Substance Use and Misuse*; vol 39, issue 4 (2003).
2. Bornstein R.F & O Neill R.M.: Dependency and suicidality in psychiatric inpatients. *Journal of Clinical Psychology*, 2000, 56, 463-473.
3. Speranza M, Corcos M, Loas G, Stephan P, Guilbaud O, Perez-Diaz F, Venisse JL, Bizouard P, Halfon O, Flament M, Jeammet P.: Depressive personality dimensions and alexithymia in eating disorders. *Psychiatry Res.* 2005 Jun 15;135(2):153-63.
4. Zuckerman M : good and bad humors : biochemical bases of personality and its disorders. *Psychol Science* 1995, 6, 325-332.
5. Goodman A : Addiction : definition and implications. *British Journal of Addiction* 1990; 85:1403-1408.

## SYMPOSIUM 67—REDUCTIONISM IN PSYCHIATRY: IMPLICATIONS AND LIMITS

### Association for the Advancement of Philosophy and Psychiatry

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, participants will be able to better understand the philosophical and social issues concerning the use of biological psychiatry to understand mental disorder.

#### No. 67A IS MODERN BIOLOGICAL PSYCHIATRY REDUCTIONISTIC OR INTEGRATIVE?

G. Scott Waterman, M.D. *University of Vermont College of Medicine, Department of Psychiatry, 89 Beaumont Avenue, Given E215, Burlington, VT, 05405*

#### SUMMARY:

Few controversies in psychiatry have had either the longevity or the emotion of the biological-psychological one. As the discipline's database grows, it becomes ever more important that coherence be brought to its theoretical structure.

This presentation will begin with a discussion of the working definitions of 'biological' and 'psychological', and will contrast the meanings those terms typically carry in the context of psychiatry with their more generic definitions. For example, it will be argued that the confluences of 'heritable' with 'biological' and of 'environmental' with 'psychological' are spurious, and that those misunderstandings have been detrimental to psychiatric teaching, understanding and practice.

Gene-environment interaction will be presented as the best model for considering the etiology, pathogenesis, manifestations and treatments of psychopathology. The way the categories of 'biological'

and 'psychological' are understood within that conceptual model, and the question of whether gene-environment interaction is biology, will be explored. Finally, it will be argued that several widely recognized problems concerning psychiatry and society, including stigma and inequitable resource distribution, are at least in part consequences of misunderstandings that a modern reformulation of the biological-psychological question will address.

#### No. 67B DR. CHEKHOV AND THE MULTIPLICITY OF PSYCHIATRIC EXPERIENCE

Bradley E. Lewis *New York University, TBD, New York, NY, 10003*

#### SUMMARY:

With the rising concern about reductionism in psychiatry, this paper explores the clinical significance of the psychiatric case of Ivanov, the lead character of Anton Chekhov's play by the same name. Nikolai Ivanov is a 35 y/o landowner who suffers from a deep unshakable sadness. He meets the criteria of today's DSM-IV category of depression. But, unlike today's diagnostic approaches, Dr. Chekhov (who is both a physician and a writer) assiduously avoids a single interpretation of Ivanov's sadness. Chekhov presents data consistent with a medical, and presumably biological, description and explanation, but he also presents a wealth of additional data which contradict this same conclusion. Indeed, the play's characters offer an array of plausible yet mutually contradictory understandings of Ivanov's troubles. Through this polyphonic approach, Chekhov beautifully renders the ambiguities of human understanding and human experience, and he invites us to take seriously narrative models of mental illness and recovery that move beyond essentialism and reductionism.

#### No. 67C REDUCTION IN PSYCHIATRY

Ian Gold, Ph.D. *McGill University, Department of Philosophy & Department of Psychiatry, 21 Foam Street Elwood, Elwood, 3184, Australia*

#### SUMMARY:

I review a putative case of reduction in psychiatry (Andreasen's, 1999, unitary model of schizophrenia) and argue that, in its attempt to reduce the properties of a global pathological state to those of a neural circuit, it sacrifices empirical adequacy. I suggest that the unification of psychological states with neurobiological ones must be achieved by a step-wise fractionation of the psychological state followed by a process of implementation (strictly understood) by a neural system. Models of this kind are more likely than reductionist models to be successful; they are closer to actual practice in cognitive neuroscience; and they are as scientifically respectable as reductions. They also illuminate the apparent conceptual gap between psychological and neurobiological explanation which reductionism has to deny.

#### No. 67D REDUCING REDUCTIONISM: RECLAIMING PSYCHIATRY

Wesley E. Sowers, M.D. *Allegheny County Office of Behavioral Health, 304 Wood Street, 5th Floor, Pittsburgh, PA, 15222*

#### SUMMARY:

Despite the expansion seen in our understanding of the human brain, the scope of psychiatry has actually been growing smaller in recent years. Our systems have evolved in ways that constrict the range of our practice and the growth of our skills. Our programs for

training psychiatrists have acquiesced to this system, and young psychiatrists are increasingly ill prepared to assume clinical leadership roles. The emphasis on neurobiology and pharmacology has limited exposure to and proficiency in rehabilitation, the psychotherapies, group dynamics, clinical administration, and supervision.

At the same time, a new movement has become a powerful force in shaping the future direction of service development. "Recovery" for persons with mental health and substance use disorders is a powerful idea that promises hope, self-respect, independence, affiliation, personal growth and empowerment. This movement no longer finds it acceptable for psychiatrists to simply be caretakers, more concerned with stabilization than with reclaiming lives. The recovery approach to services enhances clinical practice by providing a basis for hope and trust and a structure for communication and therapeutic alliance. It is time for psychiatrists to reclaim their profession and find ways to transcend the limitations of the systems providing services.

#### REFERENCES:

1. Caspi A, Sugden K, Moffitt TE, Taylor A, Craig IW, Harrington H, McClay J, Mill J, Martin J, Braithwaite A, Poulton R: Influence of life stress on depression: moderation by a polymorphism in the 5-HTT gene. *Science* 2003; 301:386-389.
2. Mattingly, C., Garro, L (eds): *Narrative and the Cultural Construction of Illness and Healing*. Berkley, University of California Press.
3. Gold I and Stoljar D. 1999. A neuron doctrine in the philosophy of neuroscience. *Behavioral and Brain Sciences*. 22(5):809-830.
4. Sowers, W, *Reducing reductionism - Reclaiming Psychiatry, Psychiatric Services, Taking Issue Column, Vol 56, no 6 pp 637.*

### SYMPOSIUM 68—COMPLEX PTSD ACROSS THE LIFESPAN: IMPLICATIONS FOR DSM-V

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to:1) Recognize the signs and symptoms of Complex PTSD across the lifespan;2) Describe the empirical basis for the diagnosis of Complex PTSD;3) Describe the role of impaired self-regulatory capacities in the etiology and treatment of Complex PTSD;4) Describe the relationship between early childhood trauma, insecure attachment, and severity of Complex PTSD;5) Describe the rationale behind a reconsideration of Complex PTSD for the DSM-V.

#### No. 68A DISORDERS OF EXTREME STRESS: RESULTS FROM THE DSM-IV FIELD TRIAL

Bessel A. Van Der Kolk, M.D. *Boston University, Department of Psychiatry, 1269 Beacon Street, Brookline, MA, 02446*

#### SUMMARY:

**Problem:** Children and adults exposed to chronic interpersonal trauma consistently demonstrate psychological disturbances that are not captured in the PTSD diagnosis.

**Method:** The DSM IV Field Trial studied 400 treatment seeking traumatized individuals and 128 community residents

**Results:** the study found that victims of prolonged interpersonal trauma, particular trauma early in the life cycle, had a high incidence of problems with: (1) regulation of affect and impulses; (2) memory and attention; (3) self-perception; (4) interpersonal relations; (5) somatization; and (6) systems of meaning. This raises important issues about the categorical vs. the dimensional nature of posttraumatic stress, as well as the issue of "comorbidity" in PTSD.

**Conclusions:** These data invite further exploration of what constitutes effective treatment of the full spectrum of posttraumatic psychopathology.

#### No. 68B SELF-REGULATION AS A FRAMEWORK FOR CONCEPTUALIZING AND TREATING COMPLEX PTSD

Julian Ford Ph.D. *University of Connecticut Health Center, Department of Psychiatry MC1410, 263 Farmington Ave., Farmington, CT, 06030*

#### SUMMARY:

Axis I diagnoses including PTSD and other anxiety, affective, dissociative, eating, sexual, and psychotic disorders are neither adequate nor parsimonious as guides to the clinical formulation and treatment of individuals with complex posttraumatic impairments in multiple domains of self-regulation that are the hallmark of complex PTSD (e.g., affect dysregulation, dissociation, somatization). A primary unresolved problem is that self-regulation itself is not well defined conceptually or clinically. This presentation describes a taxonomy of self-regulation based upon the psychobiological research literatures on three key domains of self-regulation: attachment, affect regulation, and information processing. Specific functional capacities required for self-regulation are identified, and their relevance to clinical conceptualization and treatment planning and outcome monitoring are discussed with illustrative case vignettes. Implications for the refinement of Axis I, II, and V in the DSM are discussed.

#### No. 68C EARLY CHILDHOOD TRAUMA, INSECURE ATTACHMENT, AND COMPLEX PTSD

Marylene Cloitre, Ph.D. *New York University, Psychiatry (Child Study Center), 215 Lexington Avenue, 16th Floor, New York, NY, 10016, Chase Stovall-McClough, Ph.D.*

#### SUMMARY:

This presentation reports on the attachment classifications of a large sample of treatment-seeking women with histories of childhood abuse as predictors of simple and complex PTSD. A classification of "Unresolved in regards to trauma" was strongly related to a diagnosis of PTSD with women assigned this classification 7.5 times more likely to have received a PTSD diagnosis. Unresolved classifications reflect the way in which a person talks about their trauma during the interview and includes subtle linguistic cues such as changes in verb tense, confusions in pronoun use, and is consistent with the disorganized narratives reported in PTSD patients. In addition, after controlling for the unresolved classification, the attachment organization of Secure versus Insecure was a powerful predictor of additional symptoms such as emotional regulation, interpersonal problems and somatization. Secure vs. Insecure Attachment was also strongly associated with very different reports of care taking experiences, where neglect and multiple homes/caretakers in childhood were more predominate among those currently rated with insecure attachment. These results suggest that different aspects of the adult attachment profile, an evaluation system which has developed completely independently of the PTSD literature, contributes or our understanding of the distinction between simple and complex PTSD symptoms and the associated abuse history characteristics. Implications concerning the influence of compromised attachment in treatment process and outcome are discussed.

#### REFERENCES:

1. BA. van der Kolk, S Roth, D Pelcovitz, S Sunday & J Spinazzola: *Disorders of Extreme Stress: Disorders of Extreme Stress: Disor-*

- ders of Extreme Stress: the empirical foundations of Complex Trauma. *J Traumatic Stress*, Oct 2005.
2. Ford JD: Treatment implications of altered neurobiology, affect regulation and information processing following child maltreatment: *Psychiatric Annals* 2005; 35:410-419.

## SYMPOSIUM 69—PHARMACEUTICAL INDUSTRY INFLUENCE IN PSYCHIATRY

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to: Recognize the presence of commercial influence in psychiatric education, when it exists; Cite specific examples of trends in medication prescribing influenced by pharmaceutical marketing; Identify common modifications of research methods specific to industry-sponsored clinical trials; Appraise the evidence for and against the view that industry-sponsored medical education companies are adhering to new ACCME guidelines.

### No. 69A PHYSICIANS AND INDUSTRY: A REVIEW OF COMMERCIAL INFLUENCE ON MEDICAL DECISION-MAKING

Jerome P. Kassirer M.D. *Tufts University School of Medicine, Medicine, Sackler Center-145 Harrison St., Boston, MA, 02111*

#### SUMMARY:

Over the past two decades, the pharmaceutical industry has devoted ever-increasing funds to establishing close relationships with physicians. From lavish meals to paid consultancies to speakers' fees, significant drug company remuneration has become common among physicians in most medical specialties. These financial conflicts of interest increase the fog around medical decision-making, distracting physicians from the need to use evidence-based medicine in treating patients. In this presentation, I cite numerous instances in which medical decision-making has been influenced by financial relationships between physicians and the pharmaceutical industry.

### No. 69B HOW TO EVALUATE FOR THE PRESENCE OF COMMERCIAL BIAS IN CME PROGRAMS

Daniel J. Carlat M.D. *Tufts University School of Medicine, Psychiatry, P.O. Box 626, Newburyport, MA, 01950*

#### SUMMARY:

Objective: To evaluate whether industry-sponsored medical education companies are adhering to new ACCME standards regarding commercial support of CME activities. Method: A representative sample of industry-supported CME programs was selected. Selection criteria included:

1. Programs sponsored by major pharmaceutical companies;
2. Programs produced by major medical education communication companies (MECCs);
3. Programs consisting primarily of enduring materials (print, online, or cd-rom);
4. Programs accredited by the ACCME to provide Category 1 CME credit.

Critical analysis methodology included:

1. Identification of the sponsored product and primary competing products;
2. Word counts to assess whether disproportionate content space was devoted to the sponsored product;

3. Font and heading analysis to determine whether sponsored products were disproportionately highlighted in the text;

4. Tabulation and analysis of charts and tables to determine whether sponsored products were disproportionately featured therein;

5. Thorough content analysis to determine whether potential disadvantages of sponsored products and potential advantages of competing products were reasonably discussed.

Results: The following techniques for insertion of marketing content were found to be present in the majority of industry-sponsored CME programs examined:

1. Defining the CME topic in a way that is disadvantageous to competitors.
2. Disproportionately highlighting the sponsored product in the text.
3. Presentation of case studies in which the sponsored product is effective and competing products are less effective.
4. Not mentioning, or minimizing, well-recognized disadvantages of the sponsored product.
5. Padding an article with apparently non-commercial material in order to make an embedded commercial message less apparent.

Conclusions: Medical education communication companies have found ways to subtly avoid the implementation of ACCME's updated standards of commercial support for CME activities. More vigilant surveillance of CME programs will be required to adequately enforce these standards.

### No. 69C THE ADHD/PYCHOSTIMULANT EPIDEMIC: THE ROLE OF THE PHARMACEUTICAL INDUSTRY

Lawrence H. Diller M.D. *University of California, San Francisco, Pediatrics, University of California, San Francisco, Box 0110, A-203, San Francisco, CA, 94143 - 0110*

#### SUMMARY:

Peaks in the legal prescription of psychostimulants in the United States have been correlated with corresponding epidemics of stimulant abuse. Three distinct stimulant epidemics have been identified: post WWII GIs, late 1960s psychedelic era and late 1970s diet pill era. Currently, we are witnessing another peak in psychostimulant prescribing, which began with the introduction of Adderall in 1995 and which has been fueled by an unprecedented growth in direct-to-consumer marketing. This marketing has contributed to the increased diagnosis of ADHD and the increased prescription of stimulants. Accordingly, the production and consumption of legal stimulants in the U.S. grew by over 2000% between 1990 and 2005 (43,515 kg. 2005 annual production). The DEA reports that stimulant abuse, related often to diversion of prescribed medications, has increased dramatically in prevalence over the same period of time. The recent approval of two medications for *adult* ADHD (the non-stimulant Strattera and the stimulant Adderall) has led to increased industry promotion of adult ADHD which may further increase the abuse of stimulants among teens and adults. As an epi-phenomenon of industry promotion of stimulants, America is apparently moving into its fourth doctor-prescribed illegal use of stimulant epidemic since World War II.

### No. 69D RELATIONSHIP BETWEEN DRUG COMPANY FUNDING AND OUTCOMES OF CLINICAL PSYCHIATRIC RESEARCH

Robert E. Kelly, Jr., M.D. *Beth Israel Medical Center, Psychiatry, First Avenue and 16th Street, Fierman Hall, 9th Floor, New York, NY, 10003*, Lisa J. Cohen, Ph.D., Philip Bialer, M.D., Adam Lau,

M.D., Alison Bodenheimer, B.A., Elana Neustadter, B.A., Arkady Barenboim, M.D., Igor I. Galynter, M.D.

#### SUMMARY:

**Objective:** To examine the relationship between pharmaceutical company funding of clinical psychiatric studies and the outcomes of those studies.

**Method:** Abstracts of articles from 1992 and 2002 in four leading psychiatric journals were evaluated. Drug outcomes for clinical studies with and without pharmaceutical industry sponsorship were compared using raters who were blind with respect to knowledge of sponsorship. The proportion of published drug studies sponsored by drug companies in 2002 vs. 1992 was also compared. Chi-square tests on 2 x 2 data were used to determine statistical significance. The influence of potential mediating variables was evaluated using binary logistic regression.

**Results:** The percentage of published drug studies sponsored by drug companies increased from 25% in 1992 to 57% in 2002. Favorable outcomes were significantly more common in studies sponsored by the manufacturer of the index drug (78%) than in studies without industry sponsorship (48%). Likewise, favorable outcomes were significantly less frequent in studies sponsored by the competitor of the index drug (28%) than in studies without industry sponsorship. Regression analyses further confirmed these findings.

**Conclusions:** These data indicate an association between pharmaceutical industry funding and the proportion of favorable outcomes in clinical psychiatric research, which exists independent of the effect of journal, year, drug studied, or study design.

#### No. 69E

### PSYCHIATRIC RESEARCH AS MARKETING: COMMON DISTORTIONS OF RESEARCH DESIGN IN INDUSTRY-SPONSORED CLINICAL TRIALS

Daniel J. Safer, M.D. 6 Hadley Square North, Baltimore, MD, 21218

#### SUMMARY:

This selected review of published pharmaceutical industry-sponsored comparative clinical trials will classify and describe design and reporting modifications that favor the sponsoring company's product. Research designs that achieve this include alterations in: doses, frequency of drug administration, duration of treatment, outcome cut-off points, and outcome measures. Reporting the findings can also be adjusted to magnify the benefit of the company's drug at the expense of the competitor. Such modifications include: statistical obfuscation, minimizing certain drug side effects, bar graphs that exaggerate differences in outcome, editorializing in the abstract, overpublishing known favorable findings, stressing secondary outcome measures, and masking sponsorship. Recent studies of anti-manic compounds for mood stabilization will be highlighted with respect to design and reporting distortions.

#### REFERENCES:

1. Kassirer JP. On The Take: How Medicine's Complicity with Big Business Can Endanger Your Health. Oxford University Press, 2004.
2. Steinbrook R: Commercial Support and Continuing Medical Education. *N Engl J Med* 2005; 352:534-535.
3. Angell, M: The Truth About the Drug Companies: How They Deceive Us and What To Do About It. New York, Random House, 2004.
4. Bekelman JE, Li Y, Gross CP: Scope and impact of financial conflicts of interest in biomedical research: a systematic review. *JAMA* 2003; 289(4):454-65.
5. Safer DJ: Design and reporting modifications in industry-sponsored comparative psychopharmacology trials. *J Nerv Ment Dis* 2002; 190: 583-592.

### SYMPOSIUM 70—NEW DIRECTIONS IN COMMUNITY PSYCHIATRY

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participants should be aware of new directions in community psychiatry and the possibilities for developing programs that help people with psychiatric problems to improve and to live full lives in the world beyond the borders of mental health services.

#### No. 70A

### POVERTY REDUCTION STRATEGIES: AN IMPORTANT FOCUS FOR EARLY INTERVENTION PROGRAMS

Terry Krupa, Ph.D. *Queen's University, School of Rehabilitation Therapy, 31 George Street, Kingston, ON, K7L 3N6, Canada*

#### SUMMARY:

Early intervention for psychosis has focused on identifying emerging signs, medication protocols, and psychosocial interventions with a view to avoiding acute episodes of disorder, hospitalizations, neuropsychological and cognitive impairments and minimizing disruption in social and community functioning. To date, little attention has been paid to the economic vulnerability of these individuals, and in particular their vulnerability to reliance on government disability pensions. This is an important omission in the treatment and research agenda since economic analyses of the high rates of unemployment among persons with severe mental illness indicate that disability support programs act as powerful disincentives to full employment, contributing to engulfment in a sick role. This presentation will report on program and research efforts to understand the incidence and patterns of referrals to government disability income plans among young people with psychosis and to propose strategies to reduce their vulnerability to poverty and ultimately disability and social marginalization.

#### No. 70B

### AIMING FOR THE STAR(S): REFINING RECOVERY IN PRACTICE

Helen M. Glover, B.S.W. 10 Azalea Street, Redland Bay, QLD, 4165, Australia

#### SUMMARY:

Recovery-based practice has become a common catch cry within contemporary mental health service delivery. However translating recovery theory into practice remains an ongoing challenge as services struggle to differentiate between practices that encourage and support from those that hinder individual recovery processes.

A number of common themes, vital to recovery processes, have emerged from the body of knowledge of people with a 'lived experience'. This knowledge needs to merge with the body of professional knowledge to form the basis of a 'recovery-based practice' platform.

This paper offers 'The Star of Recovery', based on the individual effort of recovery as the basis for merging the 'lived experience' and professional bodies of knowledge to progress the 'recovery-based practice' platform. Specifically the individual recovery work of Hope, Personal Responsibility, Active Sense of Self, Discovery and Connectedness form the elements of the this platform from which all stakeholders can define the critical elements and processes of recovery-based practice.

The 'Star of Recovery' also provides individuals, clinicians and services with a platform to enter an ongoing 'state of critical tension', which enables issues and dichotomies around practice both at the micro and macro level to be identified, challenged and addressed.

This framework has been utilised extensively within the Recovery Education Training Program for Mental Health Professionals in Queensland, Australia

**No. 70C**  
**YOU CAN DO IT. WE CAN HELP.**

Larry Davidson, Ph.D. *Yale University, Psychiatry, 319 Peck Street, New Haven, CT, 06514*

**SUMMARY:**

This presentation will define the use of the term "recovery" as contained in the New Freedom Commission on Mental Health Report and recently released federal Action Agenda for mental health. Given that recovery refers to what a person with a serious mental illness does to manage his or her condition and reclaim his or her life, there are important implications of this concept for both research and practice. The presenter will provide examples of how recovery can be promoted through increasing access to opportunities for the person to play an active role and through providing in vivo supports. Participatory approaches to research will also be presented.

**No. 70D**  
**THE USE OF CONSUMER OUTREACH WORKERS  
IN WORKING WITH PEOPLE IN CRISIS**

Ronald J. Diamond, M.D., *University of Wisconsin, Department of Psychiatry, 6001 Research Park Blvd, Madison, Wisconsin 53719, Beth Lucht, M.S.S.W.*

**SUMMARY:**

This paper will describe the use of consumer service providers that function as an integrated, part of a comprehensive mobile crisis team. The use of trained consumers as part of the crisis team has a positive impact on the clients in crisis, on the crisis aid providers who have been and often continue to be recipients of mental health service, and on the professional staff who work along side their consumer colleagues. For the recipients of service, the use of consumer providers is an effective way to provide real support, be it helping to wait in an SSI line or making sure that there is food in an apartment. It also allows people who have the lived experience of going through a crisis and dealing with the system to share personal strategies that are unknown to mental health professionals, and it allows the person in crisis to see someone who has, himself or herself, been in crisis, and has overcome it. For the consumer employee it can be an affirmation of their own recovery, and a way of giving back to others. For the other crisis staff, working along side consumer colleagues helps overcome the stigma about people with mental illness, and reaffirms more than anything else that recovery is truly possible. Working with consumer colleagues can help professionals learn new strategies to help people in crisis, and can change how we think about and work with our clients in crisis.

**REFERENCES:**

1. Estroff SE, Patrick DL, Zimmer CR, Lachicotte WS Jr. : Pathways to disability income among persons with severe, persistent psychiatric disorders. *Milbank Quarterly* 75; 495-532.
2. Tooth, B., Kalyanasundaram, V., et al. (2003). "Factors consumers identify as important to recovery from schizophrenia." *Australian Psychiatry* 11(Supplement): s70-S77.
3. Davidson, L.: *Living Outside Mental Illness: Qualitative Studies of Recovery in Schizophrenia*. New York: New York University Press, 2003.
4. "Service Delivery Using Consumer Staff in a Mobile Crisis Assessment Program," J.S. Lyons, J.A. Cook, A.R. Ruth, M. Karver, N.B. Slagg, *Community Mental Health Journal*, Vol. 32, No. 1, February 1996, pp.33-40.

**SYMPOSIUM 71—HOW TO PRACTICE  
EVIDENCE-BASED MEDICINE**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium, the participant should be able to:1. Understand what is evidence based medicine (EBM) and the process of practicing EBM.2. Search the literature for different kinds of evidence.3. Interpret commonly used statistical concepts. Critically appraise different kinds of studies, especially randomised controlled trials and systematic reviews.

**No. 71A**  
**INTRODUCTION TO EVIDENCE-BASED MEDICINE**

Kumaraswamy Budur, M.D. *Cleveland Clinic Foundation, Psychiatry & Neurology, Cleveland Clinic Sleep disorders center, 9500 Euclid Ave-FA20, Cleveland, OH, 44195*

**SUMMARY:**

Evidence based medicine (EBM) is defined as "the conscientious, explicit and judicious use of the best evidence in making decisions about the care of individual patient". The medical profession is exhibiting growing interest in utilizing the EBM in order to provide patients the best possible care. Many clinicians feel that they have been utilizing such an approach throughout their practice. However, with improved techniques, our opportunities of efficiently acquiring comprehensive summaries concerning diagnosis and treatment have substantially improved. This introduction will do the following: Describe the assets and shortcomings of EBM with respect to psychiatry and provide instructions on how to obtain ready access to the best EBM and related databases. For patients, EBM can help acquire correct diagnosis and selection of optimal treatment. For the practitioner, EBM can help assure that ones practice includes the best available diagnostic and treatment guidelines.

**No. 71B**  
**REVIEW OF BASIC STATISTICAL CONCEPTS**

Maju Mathews *Drexel University, Department of Psychiatry, Philadelphia, PA, 19124*

**SUMMARY:**

This talk will explore the various statistical concepts commonly encountered in research papers. It will explain what they mean and how to interpret them. The concepts covered will include relative risks, odds ratios, number needed to treat, confidence intervals, statistical and clinical significance etc.

The emphasis will be on their interpretation and the relevance to clinical decision making.

**No. 71C**  
**CRITICAL APPRAISAL OF SYSTEMATIC REVIEWS  
AND META-ANALYSIS**

Babatunde A. Adetunji *MHM Correctional Services, Department of Psychiatry, na, Philadelphia, PA, 08009*

**SUMMARY:**

This part of the symposia will involve the critical appraisal of systematic reviews and meta-analysis. Participants would be taught how to approach such appraisal in a simplified methodological way and how to analyze results of metaanalysis.

**No. 71D  
CRITICAL APPRAISAL OF RANDOMIZED  
CONTROLLED STUDIES**

Adedapo B. Williams *John Stroger Hospital, Department of Psychiatry, 179 N Taylor Avenue, Oak Park, IL, 60302*

**SUMMARY:**

**Objective:** This part of the symposium is designed to improve clinicians' understanding of evidence-based medicine (EBM) as regards appraising the evidence from randomized, controlled trials (RCTs), assessing their validity and clinical applicability.

**Method:** The presenter will give general guidelines on how to appraise randomized, controlled trials (RCTs) and do a critique of a published randomized, controlled trial, using these general guidelines.

**REFERENCES:**

1. Cooper B: Evidence based mental health policy- a critical appraisal. *Bri J Psychiatry* 2003; 183 (2): 105-113.
2. Greenhalgh T: How to read a paper: The practise of EBM. *BMJ books* 2000.
3. Cooper B: Evidence based mental health studies: A critical appraisal. *British Journal of Psychiatry* 2003; 183(2): 105-113.
4. Mathews M, Adetunji B, Mathews J, Basil B, George V, Mathews M, Budur K, Abraham S. : Psychopharmacology, effect sizes, and the big bang. *Am J Psychiatry.* 2004, 161(11):2139-40.

**SYMPOSIUM 72—THE PROBLEM OF  
OUTCOMES WITH THE DIFFICULT-TO-  
TREAT PATIENT**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to 1) recognize characteristics of various populations of difficult to treat patients; 2) understand how outcome may vary according to different treatment goals; 3) formulate new ways of conceptualizing outcomes with difficult to treat patients

**No. 72A  
FRAMING THE PROBLEM OF OUTCOME WITH  
THE DIFFICULT-TO-TREAT PATIENT**

Richard L. Munich, M.D. *Menninger Clinic, Menninger Department of Psychiatry, 2801 Gessner Drive, Houston, TX, 77080*

**SUMMARY:**

In spite of dramatic advances in psychosocial and psychopharmacological techniques, clinicians are increasingly aware of a cohort of their patients who do not respond to treatment efforts. These patients, usually burdened with substantial complexity, generate stress in their clinicians or treatment systems and are regularly referred to the inpatient service. They include those who have multiple diagnoses on multiple axes, who have sustained multiple treatment failures, who qualify as true non-responders, who are recalcitrant to and non-compliant with treatment, and who have special problems including extremely severe illness or major deficits in motivation. This variety of complexity makes defining, assessing and providing adequate controls for meaningful outcome criteria especially problematic. This symposium will address the issue of complexity and demonstrate treatment and potential outcome parameters in this cohort with mentalization based treatment, cognitive-behavioral treatment, and dual-diagnosis interventions. Potential novel assessments relating mentalizing to neuroimaging will also be considered.

**No. 72B  
RETHINKING OUTCOMES IN MENTALIZATION-  
BASED TREATMENT**

Jon G. Allen, Ph.D. *Menninger Clinic, Menninger Department of Psychiatry, 2801 Gessner Drive, Houston, TX, 77080*

**SUMMARY:**

This presentation addresses challenges in assessing outcomes in an array of inpatient programs that treat patients with complex disorders who have not responded to extensive prior treatment. The presentation will include treatment evaluation findings pertaining to an unprecedented challenge, relocating The Menninger Clinic from Kansas to Texas, which raised pressing concerns about consistency of outcomes. The presentation will also address the limitations of standardized assessments of outcomes for a treatment setting that does not endeavor primarily to promote symptom remission but rather to foster engagement in a productive treatment process that can continue beyond the hospitalization. Toward this end, the treatment programs aspire to enhance capacity for mentalization as a foundation for change, and the presentation will address challenges in assessing the effectiveness of this approach.

**No. 72C  
COGNITIVE-BEHAVIORAL THERAPY FOR  
TREATMENT REFRACTORY OCD AND OTHER  
ANXIETY DISORDERS: OUTCOME DATA FROM A  
SPECIALIZED HOSPITAL PROGRAM**

Throstur Bjorgvinsson, Ph.D. *Menninger Clinic, Menninger Department of Psychiatry, 2801 Gessner Drive, Houston, TX, 77080*, Joyce E. Davidson, M.D., Melinda Stanley, Ph.D.

**SUMMARY:**

Cognitive-Behavioral Therapy (CBT) has typically been studied in the context of time-limited treatment conducted in an outpatient setting. However, in practice, patients vary in their response to such treatment, and some require more prolonged participation to obtain optimal benefit. For example, as many as 30% of OCD patients refuse traditional CBT, and of those that complete treatment up to 30 percent fail to respond to either regular or intensive outpatient treatment. This presentation describes a specialized treatment program that utilizes both pharmacotherapy and intensive CBT in an effort to enhance the efficacy of treatment for difficult to treat patients with anxiety disorders, particularly for OCD. The findings accumulated over the last few years are in line with outcomes from other research studies in outpatient practice. Attention will be given to a broad array of outcomes including OC severity, depression, anxiety, stages of changes, personality disorders, anger, and family accommodations to OCD symptoms. Predictors of outcome will be examined. Shortcomings of the treatment program study will be discussed as well as future directions.

**No. 72D  
THE PROBLEM OF OUTCOMES WITH THE  
DIFFICULT-TO-TREAT PATIENT**

Norma V. Clarke, M.D. *Menninger Clinic, Menninger Department of Psychiatry, 2801 Gessner Drive, Houston, TX, 77080*

**SUMMARY:**

Challenges in Assessing Outcomes for Treatment Refractory Young Adults

Patients in the 18-25 age range with dual diagnoses who have failed to benefit from multiple trials of outpatient treatment are particularly difficult to treat. These patients are typically struggling with separation-individuation problems intertwined with multiple

severe Axis I and Axis II diagnoses, often including substance abuse and other addictive behaviors. This presentation will address challenges in conceptualizing reasonable outcomes in time-limited inpatient treatment as well as challenges in assessing these outcomes systematically and objectively.

**No. 72E**  
**FUTURE DIRECTION OF SPECIALIZED TREATMENT PROGRAMS: MENTALIZING, BRAIN IMAGING STUDIES AND PRELIMINARY OUTCOMES**

Efrain Bleiberg, M.D. *Menninger Clinic, Menninger Department of Psychiatry, 2801 Gessner Drive, Professionals In Crisis Program, Houston, TX, 77080*

**SUMMARY:**

This presentation will review the promotion of mentalization as a focus of treatment and outcome measure in a specialized treatment program for high achieving individuals with multiple, interacting problems including Axis I disorders, addictive disorders and personality disorders. Mentalization is a form of social cognition encompassing the attribution of mental states to interpret and predict behavior (of self and other). Utilizing interactive neuroimaging (hyperscanning) of 2 individuals engaged in a trust game provides a neural signature of the capacity to trust and mentalize that offers a view of the potential to assess treatment outcomes.

**REFERENCES:**

1. Munich, RL, Allen, JG: Psychiatric and Sociotherapeutic Perspectives on the Difficult to Treat Patient. *Psychiatry* 2003; 66 (4) 346-357.
2. Allen, J.G. (in press). Mentalizing in practice. In Allen JG and Fonagy P, *Handbook of mentalization-based treatment*. Chichester, UK: John Wiley & Sons.
3. Abramowitz JS: Effectiveness of psychological and pharmacological treatments for obsessive-compulsive disorder: A quantitative Review. *J Consult Clin Psychol* 1997; 65: 44-52.
4. Judd PH: A Dual Diagnosis Demonstration Project: Treatment Outcomes and Cost Analysis.
5. Bleiberg, E Treating professionals in crisis: A framework focused on promoting mentalizing *Bulletin of the Menninger Clinic* 2003; 67(3): 212-226.

**SYMPOSIUM 73—THE ART AND SCIENCE OF BRIEF PSYCHOTHERAPIES**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to have a working overview of effective common factors and 3 eminently schematized and teachable short term therapies; cognitive therapy, solution focused therapy and interpersonal therapy.

**No. 73A**  
**BRIEF COGNITIVE THERAPY**

Judith S. Beck, Ph.D. *Beck Inst. for Cognitive Therapy and Research, Dept. of Psychiatry, U. of PA, One Belmont Avenue, Suite 700, Bala Cynwyd, PA, 190041610*

**SUMMARY:**

Cognitive therapy has been demonstrated in over 350 research studies to be effective for a variety of presenting concerns, including depression, anxiety, and personality disorders. This presentation will use a case example to present the practice basics of cognitive therapy,

including formulating cases according to the patient's diagnosis; conceptualizing individual patients according to the cognitive model; using case formulation to plan treatment within and across sessions; establishing and maintaining a strong therapeutic alliance; structuring therapy sessions effectively; implementing cognitive and behavioral techniques; doing relapse prevention, and assessing the efficacy of treatment. Specific strategies and techniques will be presented and various resources in cognitive therapy will be described.

**No. 73B**  
**INTERPERSONAL PSYCHOTHERAPY**

Scott P. Stuart, M.D. *University of Iowa, Department of Psychiatry, 1-293 Medical Education Building, Iowa City, IA, 52242*

**SUMMARY:**

Interpersonal Psychotherapy (IPT) is a time-limited and structured intervention which focuses on the interpersonal relationships and expectations about those relationships. IPT has been empirically demonstrated to be efficacious in the treatment of depression and a variety of eating and anxiety disorders.

As is the case with other interventions, IPT is characterized both by specific techniques and strategies, and by elements which are common across psychotherapeutic treatments. In this symposium, presentation of an individual case will facilitate the demonstration of the ways in which these specific and non-specific elements are woven together most effectively. Discussion will focus on the techniques and conceptualization specific to IPT and will draw distinctions between IPT and other psychotherapeutic approaches.

**No. 73C**  
**SOLUTION-FOCUSED BRIEF THERAPY**

Brett Steenbarger *State University of New York, Upstate Medical, Department of Psychiatry, 750 E. Adams Street, Syracuse, NY, 13210*

**SUMMARY:**

Solution-focused therapy is a highly manualized approach to brief therapy that is particularly applicable for patient populations with adjustment disorders and normal-developmental life concerns. Accordingly, it is one of the easiest and least threatening therapies for residents who are beginning to learn psychotherapy. In this presentation, the practice essentials of solution-focused therapy are outlined in engaging flow charts and case examples, mirroring the way in which they are taught to developing therapists. Particular emphasis is placed on using the practice elements of solution-focused brief therapy to teach, model, and practice such core therapeutic skills as establishment of a working relationship; assessment; development of a treatment focus; active intervention; and relapse prevention. The symposium presentation will also highlight process and outcome research into solution-focused therapy and implications for practice. These include ways in which solution-focused methods can be adapted for use in inpatient therapy and in the context of longer-term supportive modalities.

**No. 73D**  
**COMMON FACTORS: ESSENTIAL INGREDIENTS FOR SUCCESSFUL PSYCHOTHERAPY**

Roger P. Greenberg *State University of New York, Upstate Medical, Department of Psychiatry, 750 E. Adams Street, Syracuse, NY, 13210*

**SUMMARY:**

Research has consistently shown that psychotherapy is beneficial to patients. For example, A classic meta-analysis of 375 studies found that 75% of patients receiving psychotherapy treatments did



better than those who did not. However, head-to-head studies comparing different models of psychotherapy have typically demonstrated equivalent outcomes among different brands of psychotherapy. This has led to the speculation that psychotherapy benefits are more a product of factors common to different approaches than to ingredients unique to any single psychotherapy model. Objectives for this presentation are to review the case for the common factors explanation of psychotherapy benefits and to highlight the importance of variables like patient expectations and pre-therapy patient characteristics in determining how successful psychotherapy will turn out to be. The presentation will also look at the placebo effect and suggest it is a potent (and not inert) factor in generating therapeutic results for psychotherapy, as well as medication treatments. Implications for practice will also be addressed in terms of therapist behaviors that have proven to be either helpful or harmful.

#### REFERENCES:

1. Beck JS: *Cognitive Therapy: Basics and Beyond*. New York: Guilford Publications, 1995.
2. Stuart S, Robertson M: *Interpersonal Psychotherapy: A Clinician's Guide*. London, Oxford University Press, 2003.
3. Steenbarger BN: Solution-focused brief therapy: Doing what works. In *The Art and Science of Brief Psychotherapies*, edited by Dewan MJ, Steenbarger BN, Greenberg RP, Washington DC, American Psychiatric Press, 2004, pp85-118.
4. Greenberg RG: Essential ingredients for successful psychotherapy: Effect of common factors. In *The Art and Science of Brief Psychotherapies*, edited by Dewan MJ, Steenbarger BN, Greenberg RP, Washington, DC, American Psychiatric Press, 2004, pp231-242.

### SYMPOSIUM 74—NEUROPSYCHIATRIC RESPONSES TO BURNS: MODELING THE DEVELOPMENTAL NEUROBIOLOGY OF TRAUMA

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium the participant should be able to describe the developmental neurobiology of trauma, identify and diagnose stress disorders in children, and be able to utilize preventive and treatment approaches. This symposium presents the emerging understanding of the neuropsychiatric responses to burn injuries from infancy through adolescence, including the basic neurobiology, the psychology and physiology of burn stress in very early childhood, determinants of traumatic stress in older children, strategies for prevention, and psychopharmacological approaches to treatment. All will be integrated using an explanatory model.

#### No. 74A NEUROBIOLOGICAL RESPONSES TO BURN TRAUMA

John B. Levine, M.D. *Massachusetts General Hospital, 51 Blossom Street, Boston, MA, 02114*

#### SUMMARY:

Acting as neurohormones, cytokines affect the hypothalamus to alter fever induction, somnolence, anorexia, CRH (corticotrophin releasing hormone) release, AVP (vasopressin) release, and decrease brain insulin growth factor, while active transport across endothelial cells allows access of cytokines to higher brain regions. These cytokines can increase constitutively released cytokines from glial cells leading to a cytokine cascade within the brain. In addition cortisol release by the adrenal glands in response to the local inflammatory response interacts with the effects of cytokines on the brain. At the neuronal level local cytokines trigger sensory nerves, particularly

the vagus sensory nerve, allowing the brain to detect and respond to the sensory signal at multiple levels.

In turn, both humoral and neuronal efferent signals in response to these afferent inputs will affect the peripheral injury. Humoral outputs involve the hypothalamic influences on pituitary output as discussed above. The neuronal efferent response best studied in relationship to the burn injury is the vagal nerve. In response to the afferent inputs indicating inflammation, the motor vagus nerve secretes acetylcholine, which dampens release of local cytokines from macrophages. Finally, levels of local cytokines, as regulated by the neural and hormonal releases, will alter acute phase inflammatory protein production by the liver (e.g. C reactive protein) which in turn has local and central effects. An intricate balance of these various inflammatory cascades, will determine the brain's response to burn injury, and will influence whether the inflammation from the burn elicits a local healing response, or whether the inflammatory response becomes overwhelming and leads to a detrimental systemic inflammatory responses such as sepsis and multi-organ dysfunction syndrome.

#### No. 74B THE PSYCHOLOGY AND PHYSIOLOGY OF BURN STRESS IN VERY EARLY CHILDHOOD

Jennifer E. Drake, M.A. *Shriners Burns Hospital, Psychiatry, 51 Blossom Street, Boston, MA, 02114*

#### SUMMARY:

**Background:** Children who are burned early in life may experience severe stress, which can overwhelm their capacities to cope. Given their limited cognitive abilities and capacity to express themselves, children who are traumatized early in life are at especially high risk. Yet, few studies have assessed the impact of early childhood trauma on psychological and physiological outcomes. This is in part due to researchers' ongoing struggle to develop reliable and valid procedures for assessing stress response in young children.

**Objective:** The current study aims to assess the course of posttraumatic stress symptomatology and physiological reactivity in 12-48 month-old acutely burned children.

**Method:** Parents were interviewed shortly after the child was admitted to the hospital and approximately one month later. PTSD symptoms were measured utilizing the Posttraumatic Stress Disorder Semi-Structured Interview and Observational Record for Infants and Young Children (PTSDSSI). Nurses recorded the child's physiological data throughout the child's stay at the hospital. The child's physical and behavioral responses were assessed in a laboratory one month after discharge.

**Results:** Children were found to be highly symptomatic. Thirty percent of subjects met criteria for partial PTSD with 84% of subjects having at least one symptom of PTSD. Furthermore, reduced social smiling was related to PTSD symptoms and the child's heart rate at 24 hours and at 7 days. Reduced vocalization was related to PTSD symptoms and the child's pain ratings at 7 days.

**Conclusions:** Early identification of young burn victims who have elevated heart rates, high levels of pain and who exhibit symptoms of Posttraumatic Stress Disorder may help to prevent the later development of psychopathology. If assessment of stress is improved in this age group, early interventions may be designed to prevent the development of posttraumatic stress disorder. This is especially important, because of the great vulnerability of young children.

No. 74C  
**DETERMINANTS OF TRAUMATIC STRESS IN OLDER CHILDREN**

Glenn Saxe *Boston Med Ctr Dowling 1 North, Boston, MA, 02118*

**SUMMARY:**

The aim was to develop a new measure for stress in children, to evaluate stress symptomatology in acutely burned children, and to develop a model of determinants of PTSD in order to further improve their care.

Method: Children from 7-17 yrs old were evaluated with diagnostic instruments for PTSD, anxiety, and depression. Members of families completed the Child PTSD Reaction Index, the MASC, and other self-report measures of psychopathology and environmental stress both during the hospitalization and 3 months following the burn. The data was analysed to investigate the major factors determining PTSD.

Results: A product of the study was the Child Stress Disorders Checklist (CSDC) which assessed both ASD and PTSD symptomatology. A second product suggests that higher levels of morphine administration during hospital stay reduces the emergence of PTSD symptomatology. A third set of findings, explaining almost 60% of the variance in PTSD symptoms, is different pathways to PTSD: 1) from the size of the burn and level of pain to the child's separation anxiety, and then to PTSD, and 2) from the size of the burn to the child's level of acute dissociation, and then to PTSD. Together these pathways provide a model with excellent fit indices. CONCLUSIONS: 1) The CSDC is a useful instrument for assessment of stress in children following trauma. 2) Total morphine administered during hospitalization correlates with reduced PTSD symptoms on longitudinal followup, and 3) The findings support a complex model for childhood PTSD in which two independent pathways may be mediated by different biobehavioral systems.

No. 74D  
**PHARMACOLOGICAL AND PSYCHOLOGICAL PREVENTION OF PTSD**

Rohini Luthra, Ph.D. *Shriners Burns Hospital, Psychiatry, 51 Blossom Street, Boston, MA, 02114*

**SUMMARY:**

With the recent natural disasters and acts of terrorism in the world, the issue of posttraumatic stress disorder (PTSD) has been thrust to the forefront of global attention. The need to prevent PTSD is now recognized as a major public health concern due to the large number of children, adolescents, and adults diagnosed with the disorder following an injury, assault, natural disaster, burn, or act of terrorism. Both pharmacological and psychological interventions are currently being used to prevent the development of PTSD. Unfortunately, while interventions to prevent PTSD are an increasingly significant priority in many settings, the scientific basis for them is still in its infancy.

Psychopharmacologic interventions have recently been used in the prevention of PTSD. To date, four classes of medication (opiates, beta-adrenergic antagonists, antidepressants, and corticosteroids) have emerged as potential preventive agents. Studies have shown that morphine, propranolol, imipramine, and hydrocortisone in particular are effective in preventing the development of PTSD. Ongoing research with SSRI's suggest that these medications may also be effective in preventing PTSD.

Psychological interventions are also being used in the prevention of PTSD. The three approaches that have received the greatest research attention are abbreviated cognitive-behavioral therapy (CBT), stress inoculation, and psychological debriefing. While both CBT and stress inoculation have shown promise in the prevention of PTSD, de-

briefing has been associated with possible risks (i.e., a worsening of clinical symptoms).

Overall, research indicates that psychopharmacologic and psychosocial approaches can be useful in the prevention of PTSD. With regard to pharmacologic methods, morphine, propranolol, imipramine, and hydrocortisone show promise in preventing PTSD although SSRI's may be in wider use for this purpose. With regard to psychosocial techniques, CBT is the most supported method of PTSD prevention. Because of possible risks, debriefing, although widely practiced, is not recommended as a prevention technique. At this time, the field of PTSD prevention suffers from a distinct lack of studies from which to draw firm conclusions about effective techniques. As such, there is an urgent need for further research in this area.

No. 74E  
**PSYCHOPHARMACOLOGICAL INTERVENTIONS FOR STRESS IN CHILDREN**

Frederick J. Stoddard, Jr., M.D., *Harvard Medical School at the MGH, Psychiatry, 51 Blossom Street, Boston, MA, 02114*, John B. Levine, M.D., Glenn N. Saxe, M.D., Robert L. Sheridan, M.D.

**SUMMARY:**

Objective: After severe injuries, psychotropic drugs may mitigate the neurobiological trauma and are an element of the new treatment technologies to improve outcomes. Pain, delirium, PTSD and depression often occur following trauma and burns with acute stress symptoms being predictive of the later development of PTSD, and PTSD and depression being risk factors for later impaired psychosocial functioning and life satisfaction. While there is only a limited research base, early and later pharmacological interventions will be presented

Method: After an extreme traumatic stressor such as a burn or other injury, symptoms of pain, delirium, PTSD or depression are observed. PTSD symptoms include reexperiencing, avoidance and numbing, and hyperarousal. Following burns, almost half of patients fulfill criteria for either PTSD or depression. Screening for severe pain, delirium, PTSD or depression informs choice of psychopharmacological interventions.

Results: The human stress response is both a psychological and neurobiological process. Various disorders including delirium, sleep disorders, PTSD and depression are associated with altered brain function. PTSD is associated with alterations in the amygdala, with hyperarousal symptoms, and the hippocampus, with memory impairment. Current research is exploring both preventive and therapeutic interventions. Candidate preventive interventions for PTSD with include propranolol, morphine sulfate, alpha adrenergic agonists, and imipramine to prevent the initiation of the stress response. Effective agents for delirium, PTSD, depression, or other burn-related disorders based mainly on use in other populations, may include benzodiazepines, SSRIs, antipsychotics, mood stabilizers, and stimulants. Thoughtful drug selection may allow treatment of several disorders with only one or two agents. It is essential in drug selection to consider interactions between both psychotropic drugs, and between psychotropic drugs and other drugs used in acute care.

Conclusion: There is an increasing range of psychiatric preventive and therapeutic interventions available for symptomatic burn patients. Pharmacological prevention is an option under active study with new findings anticipated in the near future to assist in optimizing outcomes. More proven pharmacological interventions have common utility in the acute and long-term management of pain, delirium, anxiety and depression.

**REFERENCES:**

1. Innate (inherent) control of brain infection, brain inflammation, brain repair: the role of microglia, astrocytes, "protective" glial

- stem cells, and stromal endopylmal cells. *Brain Res Rev* 2005 48: 220-233.
- Stoddard FJ, Saxe G, Ronfeldt H, Drake JE, Burns J, Edgren C & Sheridan R. Acute Stress Symptoms in Young Children with Burns. *Journal of the American Academy of Child and Adolescent Psychiatry* in press.
  - Saxe G, Stoddard F, Hall E, Chawla N, Lopez C, Sheridan R, King D, King L.
  - Saxe G., Stoddard, F., Courtney D., et al: Relationship between acute morphine and the course of PTSD in children with burns. *J Am Acad Child Adolesc Psychiatry* 2001; 40:915-921.
  - Stoddard FJ. Care of infants, children and adolescents with burn Injuries. In: Lewis M, Editor. *Child and Adolescent Psychiatry*, third edition. Lippincott Williams & Wilkins, 2002:1188-1208.

## SYMPOSIUM 75—ACUTE BRIEF PSYCHOSES: NOSOLOGY AND BOUNDARIES

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium the participant should be able to understand the current research on epidemiology and nosology of acute brief psychoses (including the DSM-IV ““brief psychotic disorder”” and ““schizophreniform disorder”” and the ICD-10 ““acute and transient psychotic disorders””).

### No. 75A ACUTE AND TRANSIENT PSYCHOTIC DISORDERS

Andreas Mameros, Prof. Dr. *Martin Luther University, Psychiatry, Julius-Kuhn-Str. 7, Halle, 06097, Germany*

#### SUMMARY:

The Acute and Transient Psychotic Disorders (ATPD) have a long tradition and have been described under various names all over the world. In DSM-IV, we can find a brief psychosis“ and in ICD-10, acute and transient psychotic disorders“ (F23). But unfortunately, investigations on the topic are very insufficient, so the WHO calls for more research on the topic. The largest study of ATPD to date is the prospective and longitudinal “Halle Study on Brief and Acute Psychoses” (HASBAP) involving 126 patients and 42 healthy controls<sup>1</sup>. The HASBAP longitudinally compares ATPD with positive schizophrenia and bipolar schizoaffective disorders. The main findings can be summarized as following: the patients are predominantly female, age of onset in the 30s to 50s, the onset is often acute or even abrupt without acute stressors, psychotic episodes have very short duration and very good response to antipsychotic drugs. ATPD usually have a favorable outcome, despite recurrences. These findings suggest that ATPD have more relations to the affective than to the schizophrenic spectrum and that they do not form an independent nosological entity.

### No. 75B THE RELATIONSHIP BETWEEN ACUTE AND TRANSIENT PSYCHOTIC SYNDROMES AND PSYCHOTIC SYMPTOMS IN THE GENERAL POPULATION: IMPLICATIONS FOR CAUSES AND TREATMENT

Peter B. Jones, Dr. Med. Sc. *University of Cambridge, Division of Psychiatry, Cambridge, United Kingdom*, Fiona McDougall, M.P.H.

#### SUMMARY:

*Aims:* To estimate the prevalence of psychotic symptoms in adulthood, and to assess selected childhood risk factors. *Method:* A stra-

tified, random sample of 5362 individuals born between 3<sup>rd</sup> to 9<sup>th</sup> March 1946 has been assessed regularly since age 6 weeks, and with the short Present State Examination at age 36 years. We report the one-month prevalence of probe symptoms for psychosis. Associations with socio-demographic and childhood factors known to be associated with the full schizophrenia syndrome were investigated *Results:* At least one clinical psychotic symptom was present in 2.1% per 1000 (95% C.I. 1.9-2.3). Symptoms were more common in women (OR=2.8, 1.7-4.9). High socio-economic group at age 15 and low cognitive test scores at age 8 predicted the presence of symptoms at age 36. *Conclusions:* Psychotic symptoms were less common than suggested by previous studies, particularly in men. Some risk factors were common to schizophrenia in this sample.

### No. 75C PANIC ATTACKS WITH PSYCHOTIC FEATURES: A VARIANT OF NONAFFECTIVE ACUTE REMITTING PSYCHOSES?

Igor I. Galynker, M.D. *Beth Israel Medical Center, Department of Psychiatry, 1st Ave at 16th Street, New York, NY, 10003*, Liliya Malaya, Ph.D., Daniel Eisenberg, M.D., James Prosser, M.D., Lisa Cohen, Ph.D.

#### SUMMARY:

Panic attacks in the community are associated with increased levels of psychotic symptoms and suicidality. The nature of this association is unclear but may be important in assessing suicidal risk and in selecting the optimal psychopharmacological treatment strategies. We have previously reported a series of patients who met DSM-IV criteria for panic disorder and experienced transient psychotic symptoms limited to the duration to their panic attacks. In some cases psychotic symptoms resolved after a brief time either spontaneously or with benzodiazepine/SSRI treatment. This presentation will focus on the clinical features of psychotic panic attacks and on the development of Psychotic Panic Symptom Scale (PPSS) designed to quantify these features. PPSS is a 20-item scale that has a good inter-rater reliability and construct validity. Our results suggest that psychosis in the course of panic attacks differs from that of schizophrenia and affective disorders in high prevalence of parapsychotic symptoms (illusions and overvalued ideas), and in its association with somatic (headaches and head pressure) and dissociative (derealization) symptoms. We suggest that the psychotic panic attacks may represent a distinct subgroup of non-affective remitting psychoses (NARP). Further research is required to clarify the relationship between psychotic panic attacks and suicidal risk and to develop optimal treatment strategies.

### No. 75D THE PLACE OF NONAFFECTIVE ACUTE REMITTING PSYCHOSES IN DSM-IV AND ICD-10

Ramin Mojtabai, M.D. *Beth Israel Medical Center, Department of Psychiatry, First Ave. at 16th Street, New York, NY, 10003*, Ezra S. Susser, M.D., Vijoy Varma, M.D.

#### SUMMARY:

Non-affective acute remitting psychoses (NARP) have an uncertain place in the current classification systems. This presentation offers an overview of the results of our past research on the course and outcome of these conditions and their current classification in the *ICD-10* and *DSM-IV*. We focus on two studies. One study examined the duration and *ICD-10* diagnoses of 98 cases of NARP drawn from 794 first admission cases of non-affective psychoses from the developed and developing country sites of the WHO Determinants

of Outcome of Severe Mental Disorders study. Results showed that few of these cases met the criteria for *ICD-10* Acute and Transient Psychotic Disorders, mostly because of the restrictive *ICD-10* duration criteria. Many of the cases of NARP last longer than the 1-3 months specified under *ICD-10*. A second study examined the clinical characteristics and 48-month illness course of 16 cases of NARP and compared these with 26 cases of *non-acute* remitting psychoses. Cases were drawn from 323 first-admissions with non-affective functional psychosis in the Suffolk County Mental Health Project in the New York State. Cases of NARP had a distinctly benign course: by 48 months, 84% either had no further episodes or further episodes with full remission between episodes. Only 37% of patients with other remitting psychoses had such a course. However, only 44% of cases of NARP were classified as cases of *DSM-IV* brief psychotic disorder or schizophreniform disorder. These studies and other work by our group and other researchers support the validity of the NARP as a condition with distinctively benign course and outcome. However, our findings call into question the adequacy of the current classification of these cases in the *DSM* and *ICD* systems.

#### REFERENCES:

1. Marneros A, Pillmann F: Acute and Transient Psychoses. Cambridge, Cambridge University Press, 2004.
2. Murray RM, Jones PB, Susser E, van Os JJ, Cannon M: The Epidemiology of Schizophrenia. Cambridge, CUP, 2003.
3. Galynker I, Ieronimo C, Perez-Acquino A, Lee Y, Winston A. Panic attacks with psychotic features. *Journal of Clinical Psychiatry*. 57(9):402-6, 1996 Sep.
4. Mojtabai R, Susser ES, Bromet EJ: Clinical characteristics, 4-year course, and DSM-IV classification of patients with non-affective acute remitting psychosis. *Am J Psychiatry* 2003; 160:2108-2115.

## SYMPOSIUM 76—ENHANCING THE WELL-BEING OF OLDER PERSONS WITH SCHIZOPHRENIA

### APA Council on Aging

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to: 1. To recognize various factors that can affect quality of life, mood, functioning, and the health care of older adults with schizophrenia. 2. To identify point of intervention that can enhance well-being and make life more meaningful for this population. 3. To become familiar with 3 theoretical models that can be used to analyze these outcome measures. 4. To learn whether there are racial and regional differences among older schizophrenic persons

#### No. 76A

### ASSESSING MEDICAL COMORBIDITY AND OPTIMIZING MEDICAL CARE IN OLDER PATIENTS WITH SCHIZOPHRENIA

Ipsit Vahia, M.D. *SUNY Downstate Medical Center, Department of Psychiatry, 49 Willow Street, 1F, Brooklyn, NY, 11201*

#### SUMMARY:

**Rationale:** Using Krause's Illness Behavior Model, we examined factors that impact on the adequacy of health treatment in a multi-racial urban sample of older schizophrenic persons.

**Methods:** The schizophrenia(S) group consisted of 198 persons age 55+ living in the community who developed schizophrenia before age 45. We excluded persons with substantial cognitive impairment. A community comparison(C) group (n=206) was recruited using

randomly selected block-groups in which we attempted to interview all persons age 55+. The questionnaire consisted of 23 scales that assessed psychiatric and physical health and functioning, cognition, service use, treatment, and various psychosocial indices. We used Krause's model to generate 11 independent variables. We created a dichotomous dependent variable based on receiving treatment for more than half(51%+) of 4 medical conditions--diabetes, heart disease, hypertension, GI ulcers. Among the S and C groups, 57% and 59% respectively, had at least one disorder.

**Results:** There were no significant differences between the S and C groups in the frequency of medical visits (2-3 months) and in the number of physical disorders, controlling for age and gender (1.3 vs 1.5,  $t=-.23$ ,  $p=.82$ ). We found significant differences between the S and C groups in the proportion receiving medications for the 4 medical conditions (.73 vs. .89,  $t=2.81$ ,  $p=.005$ ). In the S group, using logistic regression, 3 of 11 variables were significantly associated with a lower proportion of treatment: subsyndromal/syndromal depression (OR=.82, 95% CI .72-.93), lifetime traumatic events (OR=.82, 95% CI .72-.93), frequency of doctor visits (OR=.00, 95% CI .00-.28). Two variables were marginally significant: health doesn't prevent doing things ( $p=.06$ ) and having proportionately fewer providers of material assistance ( $p=.08$ ).

**Conclusion:** Consistent with other studies, schizophrenic persons didn't have more physical illnesses or fewer health visits than their age peers. Rather than focusing on accessibility, enhanced treatment adequacy may be best attained by alleviating depression, educating about medical treatments, augmenting the support network, and working with health practitioners.

#### No. 76B

### ENHANCING QUALITY OF LIFE IN OLDER PERSONS WITH SCHIZOPHRENIA

Azziza O. Bankole, M.D. *Brooklyn, NY, 11209*

#### SUMMARY:

**Rationale:** There have been few studies of quality of life (QOL) in older adults with schizophrenia, and most have used narrow measures. We have employed an adaptation of Lehman's QOL model to examine factors that impact QOL in a multi-racial urban sample of older schizophrenic persons.

**Methods:** The schizophrenia (S) group consisted of 198 persons aged 55+ living in the community who developed schizophrenia before age 45. Excluded were individuals with substantial cognitive impairment. A community comparison (C) group (n=206) was recruited using randomly selected block-groups in which we attempted to interview all persons age 55+. Our questionnaire consisted of 23 scales that assessed amongst other things psychiatric and physical health and functioning, cognition, service use, treatment, as well as various psychosocial indices. We adapted Lehman's QOL model that consists of 4 variable sets (demographic, objective, clinical, and subjective) comprising 19 independent variables. The dependent variable was the Quality of Life Index (QLI).

**Results:** The S group had a significantly lower QLI score than the C group (21.7 vs. 24.2;  $t=-5.36$ ,  $df=362$ ,  $p=.001$ ). In looking at the S group, in bivariate analysis, 13 of 19 variables were significantly related to QLI. In regression analysis, only 5 variables retained significance, viz., depressive symptoms, acute life stressors, medication side effects, financial strain, and lower self-rated health. However, all 4 variable sets added significant variance to the model. The model explained 56% of the variance in QLI, with the demographic, objective, illness, and subjective variable sets accounting for 7%, 33%, 11%, and 6% of the variance, respectively.

**Conclusions:** Like other older populations, QOL in our study population depends on multiple clinical, social, and subjective factors. Our findings suggest that many of the negative factors impacting on QOL e.g. depression, medication side effects, financial strain,

are amenable and thereby provide an opportunity to enhance the well-being of this population.

#### No. 76C

### **DIMINISHING DEPRESSION IN OLDER ADULTS WITH SCHIZOPHRENIA: TARGETS FOR INTERVENTION**

Shilpa P. Diwan, M.D. *SUNY Downstate Medical Center, Psychiatry, 415 100 Street, 2nd Floor, Brooklyn, NY, 11209*

#### **SUMMARY:**

**Rationale:** Although depression is thought to increase as schizophrenic persons grow old, it has not been well-studied. Using George's Social Antecedent Model, we examine those factors that impact on depression in a multi-racial urban sample of older schizophrenic persons.

**Methods:** The schizophrenia(S) group consisted of 198 persons aged 55+ living in the community who developed schizophrenia before age 45. We excluded persons with substantial cognitive impairment. A community comparison(C) group (n=206) was recruited using randomly selected block-groups. The questionnaire consisted of 23 scales that assessed psychiatric and physical health and functioning, cognition, service use, treatment, and various psychosocial indices. We adapted George's Social Antecedent Model of Depression that consists of 6 categories comprising 17 independent variables. We used a dichotomous dependent variable based on a CES-D cut-off score of > 16.

**Results:** The S group had significantly more persons with clinical depression than the C group (32% vs. 11%;  $\chi^2=28.23$  df=1, p=.001). In the S group, in bivariate analysis, 8 of the 17 variables in the model were significantly related to clinical depression. In logistic regression, 6 variables retained significance: physical illness (OR=1.54, 95% CI 1.07-2.21), acute stressors (OR=1.10, 95% CI 1.03-1.18), presence of positive symptoms (OR= 1.10, 95% CI 1.00-1.20), proportion of confidants (OR= 0.27, 95% CI 0.00-0.32), copes by using medications (OR=2.07, 95% CI 1.07-3.98), use of spiritualists or their products (OR=2.01, 95% CI 1.08-3.73). Only 52% of depressed persons identified themselves as experiencing depression and 39% reported taking medications for depression.

**Conclusion:** Consistent with earlier studies of older schizophrenic populations, we found physical health and several non-clinical variables to be associated with depression. We found an association of depression with positive symptoms which corroborates earlier studies. Potential points for intervention include strengthening social supports, improving physical well-being, more aggressive treatment of positive symptoms, and increasing the recognition and treatment of depression.

#### No. 76D

### **ADAPTIVE FUNCTIONING IN OLDER PERSONS WITH SCHIZOPHRENIA**

Carl I. Cohen, M.D. *SUNY Downstate Medical Center, Psychiatry, Brooklyn, NY, 11203*, Azziza O. Bankole, M.D., Shilpa P. Diwan, M.D., Paul M. Ramirez, Ph.D., Ipsit Vahia, M.D.

#### **SUMMARY:**

**Rationale:** Adaptive functioning entails the ability to handle instrumental activities of daily living (IADL) and to establish socially meaningful relationships. There has been a paucity of studies assessing adaptive functioning in older schizophrenic adults. Here, we examine factors associated with IADL and intimate social ties (i.e., confidantes) in older schizophrenic persons in New York City.

**Methods:** The schizophrenia group(S) consisted of 198 persons aged 55 and over living in the community who developed schizophre-

nia before age 45. A community comparison(C) group (n=206) was recruited using randomly selected block-groups in which we attempted to interview all persons aged 55 and over. We excluded persons with substantial cognitive impairment. The questionnaire consisted of 23 scales that assessed psychiatric and physical health and functioning, cognition, service use, treatment, and various psychosocial indices. We used George's Social Antecedent Model to generate 17 independent variables. Based on comparisons with community controls, we looked at persons scoring in the lowest third of the IADL scale and persons scoring in the highest third on the proportion of intimate ties in their social network.

**Results:** Among the C group, 9% were in the low IADL category and 68% were in the high intimacy category, whereas among the S group 33% were in each of these categories. Looking at the S group alone, in bivariate analyses, 4 variables were significantly associated with lower IADL and 10 variables were associated with a high proportion of intimates. Using logistic regression, we found 6 variables were significantly associated with lower IADL: financial strain, more medication side effects, greater proportion of substance linkages, living in supervised housing, diminished use of acceptance as a coping strategy, and fewer recent life stressors. However, high intimacy remained associated significantly with only 3 variables: 2 clinical variables (fewer depressive and negative symptoms) and one coping variable (use of medications).

**Conclusion:** The findings indicate that social relations were associated with clinical factors whereas daily functioning is more related to psychosocial factors. Strategies to enhance adaptive functioning in this population must recognize these differences.

#### **REFERENCES:**

1. Journal Article: Folsom DP, McCahill M, Bartels SJ, Lindamer LA, Ganiats TG, Jeste DV.: Medical comorbidity and receipt of medical care by older homeless people with schizophrenia or depression. *Psychiatr Serv.* 2002 Nov;53(11):1456-60.
2. Journal Article- Sciolla, A: Functioning and Well-Being of Middle-Aged and Older Patients With Schizophrenia: Measurement With the 36-Item Short Form (SF-36) Health Survey. *Am. J Geriatric Psychiatry* 2003; 11(6):629-37.
3. Journal Article-Jin H, Zisook S, Palmer BW, Patterson TL, Heaton RK, Jeste DV. Association of depressive symptoms with worse functioning in schizophrenia: a study in older outpatients. *J Clin Psychiatry.* 2001 Oct;62(10):797-803.
4. Cohen CI: Social vicissitudes of schizophrenia in later life. In *Schizophrenia Into Later Life*, edited by Cohen CI. Washington, D.C., American Psychiatric Publishing, 2003, pp155-174.

### **SYMPOSIUM 77—DEMORALIZATION AND PSYCHOTHERAPY: A TRIBUTE TO JEROME D. FRANK, M.D.**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to recognize the difference between depression and demoralization, understand the demoralization hypothesis as a common framework for psychotherapeutic interventions, and learn about recent findings of research on demoralization.

#### No. 77A

### **THE DEMORALIZATION HYPOTHESIS: CONCEPTUALIZATION, EPIDEMIOLOGY, AND CLINICAL RELEVANCE**

John M. de Figueiredo, M.D. *Yale University School of Medicine, Psychiatry, P.O. Box 573, Cheshire, CT, 06410-0573*

**SUMMARY:**

Jerome D. Frank proposed that demoralization is the condition that all forms of psychotherapy attempt to relieve. The study of demoralization is important for several reasons. Epidemiological studies have shown that demoralization is a major public health problem, closely associated with sociocultural disintegration. Demoralization is also one of the most common reasons why people seek medical treatment. In addition, demoralization appears to influence the course of both physical illnesses and mental disorders. Demoralization has been defined as a combination of distress and subjective incompetence. The development and use of a reliable and valid scale to measure subjective incompetence has led to new insights into the complex relationship between demoralization and pathology. Recent research is elucidating under what conditions a physical illness or a mental disorder may set the stage for the appearance of demoralization, and in what ways demoralization may worsen the prognosis of a physical illness or a mental disorder. The demoralization hypothesis continues to stand out as an important unifying paradigm for psychotherapeutic interventions in a variety of clinical settings.

**No. 77B**  
**DEMORALIZATION IN THE EXPERIENCE OF BEING ILL**

David Clarke

**SUMMARY:**

The concept of demoralisation is extremely pertinent to the experience of being ill. Empirical data will be presented to show that demoralisation can be distinguished from other forms of depression and is a useful way to understand depression in the medically ill. A strong sense of coherence is protective against demoralisation.

**No. 77C**  
**BRIEF PSYCHOTHERAPY AT THE BEDSIDE: COUNTERING DEMORALIZATION FROM MEDICAL ILLNESS**

James L. Griffith, M.D. *George Washington University Medical Center, Dept. of Psychiatry and Behavioral Sciences, 2150 Pennsylvania Avenue, N.W., 8th Floor, Washington, DC, 20037, Lynne M. Gaby, M.D.*

**SUMMARY:**

Bedside psychotherapy with medically-ill patients can help counter demoralization, which is the despair, helplessness, and sense of isolation that many patients experience when impacted by illness and its treatments. Demoralization can be usefully regarded as the compilation of different existential postures that position a patient to withdraw from the challenges of illness. For most humans, illness touches upon multiple existential themes, with some more pressing concerns than others. For one person, helplessness may dominate, despair for another, and meaninglessness for yet another. For each existential posture of vulnerability, however, there is a corresponding existential posture of resilience: hope versus despair, communion versus isolation, agency versus helplessness, purpose versus meaninglessness, among others. A fruitful interviewing strategy is to discern which existential themes are of most concern, then to craft questions that help mobilize existential postures of resilience. Brief, improvised dialogues that ensue can help patients build resilience to the adversities of illness. Such bedside interviews with medically-ill patients may also provide a model for brief psychotherapies in other settings that often have been regarded as too unfavorable for formal psychotherapy, such as inpatient psychiatric units, community psychiatry clinics, and psychopharmacological practices.

**REFERENCES:**

1. de Figueiredo JM: Depression and demoralization: phenomenological differences and research perspectives. *Comprehensive Psychiatry* 1993; 34(5): 308-311.
2. Clarke DM, Kissane DW, Trauer T, Smith GC. Demoralization, anhedonia and grief in patients with severe physical illness. *World Psychiatry* 2005; 4: 96-105.
3. Griffith JL, Gaby L: Brief psychotherapy at the bedside: Countering demoralization from medical illness. *Psychosomatics* 2005; 46:109-116.

**SYMPOSIUM 78—USE OF QUANTITATIVE INSTRUMENTS FOR MONITORING DEPRESSION SEVERITY: CLINICAL APPLICATIONS**

**EDUCATIONAL OBJECTIVES:**

To update clinicians and researchers on current evidence-based approaches in the management of depression for routine clinical care. Become familiar with innovative national approaches for improving care for patients with depression.

**No. 78A**  
**NATIONAL DEPRESSION MANAGEMENT LEADERSHIP INITIATIVE: IMPROVING DEPRESSION CARE**

Henry Chung, M.D. *Pfizer, LNS, 726 Broadway, 4th Flr, New York, NY, 10017, David J. Katzelnick, M.D., Farifteh F. Duffy, Ph.D., Donald S. Rae, M.S., Darrel A. Regier, M.D.*

**SUMMARY:**

Presently, primary care and psychiatric physicians do not routinely use an outcome measure to monitor severity of a patient's depressive disorder. Collection of a standardized outcome measure in Diabetes Mellitus treatment (HgbA1c) has catalyzed the use of programs designed to improve diabetes outcomes. The Patient Health Questionnaire (PHQ-9) has emerged as a practical standard self-rated metric for depression outcomes. Can the PHQ-9 become for depression what the HgbA1c is for diabetes?

The American Psychiatric Practice Research Network (PRN) of the APA, the American Academy of Family Physicians, and the American College of Physicians teamed up to engage 19 psychiatric and 18 primary care practices in a collaborative to develop practice-driven strategies to improve management of depression in routine clinical practice. This twelve month collaborative is based on the model created by the Institute of Healthcare Improvement and included three in-person learning sessions in 2005. We will focus on the psychiatric track of the collaborative.

Data will be presented on 1) Do psychiatrists find PHQ-9 scores valuable? 2) What percentage of treatment decisions are altered based on PHQ-9 scores 3) What are feasible options for implementing PHQ-9-based proactive monitoring in solo and group psychiatric practices, and other systems of care? 4) What percent of psychiatric patients who participate in the program achieve PHQ-9 score levels of "Response" (a PHQ-9 score less than 10) or "Remission" (a PHQ-9 score of less than 5)?

**No. 78B**  
**DEPRESSION MANAGEMENT EXPERIENCE IN PRIVATE VS. PUBLIC PSYCHIATRIC PRACTICES**

Rodrigo A. Munoz, M.D. *University of California at San Diego, Department of Psychiatry, 9500 Gilman Dr, Mailcode 0603, San Diego, CA, 92103*

**SUMMARY:**

We have brought the ideas explored in the Leadership Project to two different programs in San Diego: A clinic where psychiatrists interact freely with primary care physicians seeing indigent patients, and a private practice where psychiatrists may see patients by referral or by direct request from the patients.

The Clinic has become a major center for the identification and treatment of patients with Depression. Since the program was started, more patients have been identified as depressed, more patients have been referred to psychiatrists, and the gaps in treatment for psychiatric patients have considerably decreased.

The situation in private practice is much different. Primary care physicians are financially penalized by insurance companies for diagnosing and treating depressed patients. Managed care organizations deny payment for clinical services, and refuse to honor prescriptions for antidepressants not signed by psychiatrists. This situation creates major barriers to a meaningful interaction between primary care physicians and psychiatrists.

This presentation compares progress made so far in both settings in San Diego, and makes recommendations for further progress.

**No. 78C  
DEPRESSION MANAGEMENT EXPERIENCE IN  
PRIMARY CARE**

Jack S. McIntyre, M.D. *Unity Health System, Department of Psychiatry, 2000 South Winton Road, Bldg. 4 Suite 303, Rochester, NY, 14618*

**SUMMARY:**

The integration of behavioral health services and primary care has grown significantly over the past two decades. In one model, behavioral health staff provide the services at the primary care site. This improves the access to care, decreases stigma, improves communication between health/mental health providers and there is increasing evidence that outcomes are improved. This model was implemented at Unity Health System in Rochester, New York in 1995. However, there are a number of issues to be addressed if this model is to become more effective. One of the significant challenges is the identification of patients with mental disorders. A screening tool such as PHQ9 has proved to be very effective in identifying individuals with Major Depressive Disorder. However, because of time demands and the considerable increase in screening tools primary care physicians are reluctant to add yet another screen to the work flow.

This presentation will focus on the strategies that have been followed in having this tool incorporated into the primary care sites at Unity Health System. Results of the screening project and its impact on care will also be presented.

**No. 78D  
DEPRESSION SCREENING AND MANAGEMENT IN  
NEW YORK CITY**

Lloyd I. Sederer, M.D. *Exec Deputy Commissioner for Mental Health, City of New York, 93 Worth Street, Room 410, New York, NY, 10013*

**SUMMARY:**

The NYC Department of Health and Mental Hygiene has initiated a public mental health initiative on depression in primary care. Our method will employ the PHQ-9, which provides a score that measures depression much like there is a number for blood pressure and lipid levels, thereby demystifying depression treatment and measurement for primary care physicians and ensuring accountability through reporting of screening and treatment results.

The initiative will implement screening and management in NYC municipal hospitals and expanding this work to voluntary private

hospitals, Federally Qualified Health Centers (FQHCs) and local universities; will introduce a depression/alcohol screening web and telephone-based workplace tool; will implement a depression screening initiative for the elderly in the Bronx; and run a public media campaign for the public about "a test for depression."

The presenter will review the efforts underway, the challenges, and the successes of this unprecedented effort to change the landscape of primary care treatment of depression across the landscape of a large, diverse urban municipality.

**No. 78E  
OPTIMIZING THE TREATMENT OF DEPRESSION:  
USING TREATMENT ALGORITHMS IN  
CONJUNCTION WITH STANDARDIZED  
INSTRUMENTS IN CLINICAL CARE SETTINGS**

Madhukar H. Trivedi, M.D. *University of Texas Southwestern Medical Center, Mood Disorders Research Program and Clinic, 5323 Harry Hines Blvd, Dallas, TX, 75390*

**SUMMARY:**

Practitioners have a wide array of treatment options from which to choose when managing the care of depressed patients. Though a large number of treatment alternatives exist, more than 70% of patients do not experience a satisfactory clinical benefit from their initial treatments. This is due, in part, to the fact that patients are often under-treated with respect to dose and duration of antidepressant medication and have inadequate follow-up during critical initial treatment stages.

In an effort to enhance the quality of treatment for depression, multiple guideline efforts have been undertaken. The NIMH-funded STAR\*D project and the Texas Medication Algorithm Project aim to determine the most effective treatment strategies for those patients who do not adequately benefit from initial treatment. These treatment protocols aim to determine and to implement not only adequate dose and duration of antidepressant medications, but also an appropriate treatment augmentation or combination of pharmacotherapy and psychotherapy. The most challenging task facing clinicians centers around choosing the next step once a treatment has not been effective.

Our recently developed and implemented Measurement Based Care approach provides prompts at the point of care and during the clinical decision-making process. It is clear that interventions employing standardized instruments to measure depressive symptoms would further enable practitioners to accurately document the patient's symptoms and improve the fidelity to treatment algorithms for mood and anxiety disorders. Results from the ongoing APA-AAFP sponsored APIRE initiative will also be discussed.

**REFERENCES:**

1. Katzelnick DJ, Von Korff M, Chung H, et al. Applying Depression-Specific Change Concepts in a Collaborative Breakthrough Series. *Jt Comm J Qual Improv*; 31(7):386-397, 2005.
2. N/A.
3. Nickels M., McIntyre J. "A Model for Psychiatric Services Primary Care Settings." *Psychiatric Services*, 1996, 47:522-526.
4. Robins, LN, Regier, DA (eds). *Psychiatric Disorders in America, The Epidemiologic Catchment Area Study*, 1990; New York: The Free Press.
5. Trivedi MH, Rush JA, Crismon ML, et al: Clinical Results for Patients With Major Depressive Disorder in the Texas Medication Algorithm Project, *Arch Gen Psychiatry*, 61(7):669 - 680.

## SYMPOSIUM 79—WOMEN'S LIFE CYCLE AND MENTAL HEALTH

### EDUCATIONAL OBJECTIVES:

At the end of the symposium, participants will be more aware of aspects of female reproductive cycle and the corresponding mental health issues.

### No. 79A THE FEMALE LIFE CYCLE: FROM CHILDHOOD TO OLD AGE

G. William Bates, M.D. *digiChart Inc., Nashville, TN, 37027*

#### SUMMARY:

The female life cycle is influenced by hormonal events that begin during fetal life and continue through old age. These hormonal events and changes affect sexual development, sexual function, psychological well-being and physical activity. This lecture will elucidate these hormonal events.

### No. 79B MENOPAUSAL MANAGEMENT

Esther Eisenberg, M.D. *Professor, Vanderbilt University, OB/GYN, Vanderbilt University Med Ctr, MCN B1100, Nashville, TN, 37232-2519*

#### SUMMARY:

The menopausal transition marks the end of a woman's reproductive years. The hallmark of this period of transition is menstrual irregularity, and often women experience vasomotor symptoms, anxiety, depression and changes in sexual function. Depressive symptomatology may be associated with a previous history of depression during the reproductive years. In the past, many of these symptoms were treated with hormone replacement therapy; however since the Women's Health Initiative study, many women are reluctant to take hormones to treat these symptoms. Selective serotonin inhibitors have been shown to reduce frequency and severity of hot flashes, and may alleviate some of the troublesome symptoms of menopause. Women who become menopausal as a result of hysterectomy and surgical removal of the ovaries differ from women who undergo a natural transition to menopause because the ovaries continue to produce androgens for ten or more years beyond menopause. These women may be more troubled with sexual dysfunction. Possible options for treatment will be discussed.

### No. 79C SOCIOLOGICAL ASPECTS OF FAMILY PLANNING

Patricia Matthews-Juarez, Ph.D. *Associate Dean, Meharry Medical College, Faculty Affairs and Development, 1005 DB Todd Blvd., Nashville, TN, 37208*

#### SUMMARY:

Throughout the world, women continue to have various degrees of freedom in determining how they will produce children. Societal circumstances such as marital and socio-economic status seem to have little impact upon family planning decision-making or procreation for a subset of women. This presentation will explore the concept of freedom and its sociological effect on family planning. It will examine family planning as a social concept and societal practice among five ethnic groups: African Americans, Mexican Americans, Chinese Americans, Hawaiian Americans, and Native Americans. The presentation will present literary evidence about the

impact of family planning as a practice on the functionality of the ethnic minority family as a cohesive unit.

### No. 79D PSYCHOSOCIAL ASPECTS OF INFERTILITY

Samuel O. Okpaku, M.D. *Meharry Medical College, Psychiatry & Behavioral Sciences, 1005 D.B. Todd Boulevard, Nashville, TN, 37208*

#### SUMMARY:

Although women now have several options to child bearing and rearing, there remains some perception that infertility may have psychological distress, at least for some women.

Assisted reproduction provides an opportunity for child bearing again; however, for some individuals there are concomitant psychological issues, with multiple births and unsuccessful attempts. It is suggested that some of these effects may have social, cultural and psychological contributions.

#### REFERENCES:

1. Barnabei FM et al. Menopausal symptoms and Treatment-Related Effects of Estrogen and Progestin in the Women's Health Initiative. *Obstet Gynecol* 2005;105:1063-73.
2. Book-Huston: *Motherhood by Choice*. New York, NY, The Feminist Press, 1992.
3. Wright, VC, Scheive LA, Reynolds MA, Jeng G, Assisted reproductive technology surveillance ' United States 2000 {published correction appears in *MMWR* 2003; 52:942} *MMWR Surveillance Summary* 2003; 52:1-16.

## SYMPOSIUM 80—STALKING OFFENDERS AND VICTIMS

### EDUCATIONAL OBJECTIVES:

To treat stalking victims and offenders by acquiring knowledge of: the causes and consequences; legal and societal responses; therapeutic techniques; and countertransference issues.

### No. 80A STALKING: AN OVERVIEW OF THE PROBLEM

Gail E. Robinson, M.D. *Toronto General Hospital, Department of Psychiatry, 200 Elizabeth Street, 8-231 EN, Toronto, ON, M5G 2C4, Canada*

#### SUMMARY:

Stalking or criminal harassment is defined as the willful, malicious and repeated following or harassing of another person. The behaviour includes such things as following, surveilling, making multiple phone calls, harassing the victim's employer or family, interfering with personal property or sending threatening or suggestive gifts or letters. The offender's behaviour is terrorizing, intimidating and threatening, and restricts the freedom of and controls the victim. It is estimated that 1 in 20 women will be stalked at some point in her lifetime. Most stalkers are male. In 90% of women murdered by a current or estranged intimate, the murders are preceded by some form of stalking. The majority of stalking cases are related to failed intimate relationships. Celebrities, people in positions of authority or prominence as well as health care providers are at an increased risk for attracting stalkers. Stalkers have been described as the rejected, resentful, incompetent, intimacy seekers and predators. Victims suffer from depression, anxiety, shame, embarrassment, guilt and helplessness and often fear for their lives. They often lose friendships, jobs and financial security. Victims experience added stress because of society's failure to acknowledge the seriousness of this problem.



No. 80B

**STALKING VICTIMS: A COMPREHENSIVE TREATMENT APPROACH**

Karen M. Abrams *Toronto General Hospital, Department of Psychiatry, 200 Elizabeth St, Toronto, ON, M5G2C4, Canada*, Gail E. Robinson, M.D.

**SUMMARY:**

Treatment of stalking victims requires a comprehensive approach including education, supportive psychotherapy and a discussion of practical measures. Education to victims about the nature of stalking, including common emotional reactions helps to validate the patient's feelings, reduce self-doubt, and mobilize her. It is important for victims to receive the message that this is not their fault. Supportive therapy will increase the woman's self-esteem by helping her to assert herself with the stalker and, if necessary, the authorities. Therapists can empower the victim to take control through (1) documentation and collecting evidence and (2) taking safety precautions.

While treating victims, therapists must be aware of many countertransference issues that may interfere with effective therapy. Therapists may over-identify with the patient's powerlessness or hesitate to take on a case out of fear of the stalker. Female therapists may protect themselves against the realization of their own vulnerability by blaming the victim. However, a female therapist may create an empathic environment in which the patient can experience, contain and tolerate her feelings of powerlessness. Countertransference reactions in a male therapist can lead to overprotectiveness, overdefensiveness, or anger that can interfere with his ability to be helpful to the patient.

No. 80C

**STALKING: A TREATMENT CONCEPT FOR OFFENDERS**

Werner Tschan, M.D. *University of Basel, Department of Psychiatry, Neuensteinerstr. 7, Basel, 4053, Switzerland*

**SUMMARY:**

It is estimated, that 25% of women and 10% of men experience stalking in their life. After the recent implementation of legal approaches to prevent stalking and the increasing understanding of the reasons leading to stalking, there is a need to establish specific treatment approaches for stalkers.

The treatment concept is based on the offensive stalking behavior, attachment experiences and forensic knowledge about treatment outcomes. Preliminary results will be presented.

**REFERENCES:**

1. Abrams KM, Robinson GE. Stalking Part I: An Overview of the Problem. *Can J Psychiatry* 1998;43:473-476.
2. Abrams KM, Robinson GE: Stalking Part 2: Victims' problems with the legal system and therapeutic considerations. *Can J Psychiatry* 1998; 43:477-481.
3. Tschan W: Delikt fokussierte Behandlung von Stalkern. In: *Psychologie des Stalking*, edited by Hoffmann J, Voss H-GW, Verlag für Polizeiwissenschaften, Frankfurt aM, in print.

## **SYMPOSIUM 81—NICOTINE DEPENDENCE AND SCHIZOPHRENIA: NEUROBEHAVIORAL PATHWAYS**

### **National Institute on Drug Abuse**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to recognize the neurobiological and behavioral mechanisms that

may explain the high rates of cigarette smoking among schizophrenic patients and learn about the state-of-the-art treatments for individuals with these comorbid conditions.

No. 81A

**NICOTINE INTAKE AND BLOOD LEVELS IN SMOKERS WITH SCHIZOPHRENIA**

Jill Williams *UMDNJ - Robert Wood Johnson Medical School, Department of Psychiatry, Piscataway, NJ, 08854*

**SUMMARY:**

It has been proposed that smokers with schizophrenia take in more nicotine per cigarette than smokers without this disorder. We conducted a study to examine this phenomenon by comparing the serum nicotine and cotinine levels in smokers with schizophrenia and schizoaffective disorder to control smokers without mental illness. The cotinine and nicotine levels of smokers with schizophrenia and schizoaffective disorder were 1.3 times higher than control smokers (cotinine 291 versus 227 ng/mL;  $p=0.0115$ ; nicotine 28 versus 21 ng/mL;  $p=0.000$ ) despite smoking a similar number of cigarettes per day. Additionally similar 3-hydroxy cotinine:cotinine ratios in both groups indicate that this difference was not due to differences in the capacity to metabolize nicotine and cotinine and likely due to an increased nicotine intake per cigarette in smokers with schizophrenia. Consistent with these findings, smokers with schizophrenia have also been shown to have differences in cigarette puffing behavior (i.e. smoking topography). Increased nicotine intake from smoking cigarettes has several implications for smokers with schizophrenia and schizoaffective disorder. Patients are likely to have higher than expected levels of nicotine dependence and withdrawal symptoms, even with moderate amounts of smoking. This means that successful treatments for this group will likely require aggressive use of nicotine replacement medications in higher doses. Increased intake of nicotine implies also increased intake of other toxic components of tobacco smoke which could have health implications as well.

No. 81B

**EFFECTS OF BIOLOGICAL AND ENVIRONMENTAL CHALLENGES ON SMOKING IN SCHIZOPHRENIC VERSUS NON-PsYCHIATRIC HEAVY SMOKERS**

Jennifer W. Tidey, Ph.D. *Brown University, Ctr for Alcohol/Addiction Studies, Butler Hospital, BOX G-BH, PROVIDENCE, RI, 02912*, Damaris J. Rohsenow, Ph.D., Gary B. Kaplan, M.D., Robert M. Swift, M.D.

**SUMMARY:**

Although cigarette smoking rates are declining in the general population, rates of smoking among people with schizophrenia remain markedly high. Quit rates in these smokers are virtually zero. This presentation will describe results from a series of studies that have examined, under controlled laboratory conditions, effects of acute abstinence, exposure to smoking-related cues, nicotine replacement and bupropion on smoking urges, nicotine withdrawal symptoms, and smoking behavior in people with schizophrenia compared to equally-heavy smokers who do not have current psychiatric illness. The results of these studies have implications for the development of novel smoking treatment approaches in people with schizophrenia.

No. 81C

**NICOTINE ABUSE AND THE NEUROBIOLOGY OF SCHIZOPHRENIA**

Robert Freedman, M.D. *University of Colorado, Department of Psychiatry, Container C268-71, Denver, CO, 80262*

**SUMMARY:**

One of the characteristics of schizophrenia is the marked abuse of tobacco. The heavy smoking of patients has been conceptualized as an attempt at self medication. This hypothesis will be reviewed from the perspective of what is known about the molecular biology and neurobiology of nicotinic receptors in schizophrenia. Medications such as clozapine reduce smoking significantly; the neurobiology and treatment implications of this phenomenon will be examined.

No. 81D

**PHARMACOLOGICAL TREATMENT OF NICOTINE DEPENDENCE IN SCHIZOPHRENIA: MODULATION OF OUTCOMES BY ATYPICAL ANTIPSYCHOTIC DRUGS, COGNITIVE FUNCTION AND GENETIC POLYMORPHISMS**

Tony P. George *Monroe, CT, 06468***SUMMARY:**

The objective of this presentation is to review medication treatments for nicotine dependence in patients with schizophrenia, and factors associated with treatment outcomes. Clinical and epidemiological evidence suggests high rates of cigarette smoking and nicotine dependence in these patients, and high rates of quit attempt failures compared to non-psychiatric smokers. Several studies with nicotine replacement therapies (NRTs; including nicotine patch and nasal spray) in combination with psychosocial treatment, indicate that these products appear to be safe for use in these patients and are associated with moderate short-term smoking abstinence rates of 10-40%. However, efficacy studies using placebo versus active NRTs have not been conducted. However, there have been three placebo-controlled studies of sustained-release (SR) bupropion in smokers with schizophrenia that suggest the short-term efficacy of this agent with end of trial abstinence rates of 11-50%. Furthermore, treatment with bupropion SR is well-tolerated in this population, with little evidence for alteration in positive symptoms, and possibly reductions in negative symptoms. The role of extended treatment with NRTs and bupropion will be explored. The presentation will also summarize the role of treatment and patient factors which may modulate cessation outcomes in these patients, including level of nicotine dependence, treatment with atypical versus typical antipsychotic drugs, genetic polymorphisms in prefrontal cortex (PFC) catecholamine metabolism (e.g. COMT) and the presence and severity of PFC-dependent neurocognitive deficits. Finally, the role of novel medications that target neurochemical dysregulation associated with schizophrenia and co-morbid nicotine dependence such as nicotinic allosteric modulators, glutamatergic partial agonists and PFC dopamine enhancers is discussed. Thus, while nicotine dependence in schizophrenia is clearly a "hard target" for successful treatment, our increasing understanding of the neurobehavioral basis of schizophrenia, nicotine dependence and their intersection is leading to the discovery and implementation of more rationale treatment of this frequent and clinically significant co-morbidity, and may serve as a model for the development of dual therapies in other co-morbid psychiatric and substance use disorders.

No. 81E

**INTEGRATING TOBACCO DEPENDENCE TREATMENT INTO MENTAL HEALTH TREATMENT**

Douglas M. Ziedonis *UMDNJ, Robert Wood Johnson Medical School, Department of Psychiatry, Piscataway, NJ, 08854***SUMMARY:**

Integrating tobacco dependence treatment into existing mental health treatments is important. Most individuals with schizophrenia

are nicotine dependent, and many have increased morbidity and mortality due to tobacco. Unique mental health treatment setting and schizophrenia-specific characteristics contribute to the onset and maintenance of nicotine dependence, however evidence suggests that existing nicotine dependence treatments can be effective. There is both an immediate need to address tobacco in this population and to expand research agendas for this population. This presentation will also review the research supporting medications and psychosocial treatments for this population, including nicotine replacement medication, bupropion, atypical antipsychotics, and modified psychosocial treatments. Practical medication management issues will be reviewed and innovative psychosocial interventions to enhance engagement, to motivate, and to help quit smoking. Addressing tobacco requires system changes and staff training. Effective model programs and system changes will be presented, including the specialized program for schizophrenic smokers at the University of Medicine and Dentistry of New Jersey Tobacco Dependence Program ([tobaccoprogram.org](http://tobaccoprogram.org)). Participants will learn about resources and training materials on this topic.

**REFERENCES:**

1. Williams JM, Ziedonis DM, Abanyie F, Steinberg ML, Foulds J, and Benowitz NL: Increased nicotine and cotinine levels in smokers with schizophrenia and schizoaffective disorder is not a metabolic effect. *Schizophr Res.* 2005 Jun 14; [Epub ahead of pr.
2. Tidey JW: Cigarette smoking topography in smokers with schizophrenia and matched non-psychiatric controls. *Drug Alcohol Depend* 2005; in press.
3. Martin LF, Kem WR, Freedman R: Alpha-7 nicotinic receptor agonists: potential new candidates for the treatment of schizophrenia. *Psychopharmacology* 2004;174:54-64.
4. George, T.P. et al. Nicotine transdermal patch and atypical antipsychotics for smoking cessation in schizophrenia. *Am. J. Psychiatry.* 2000; 157: 1835-1842.
5. Ziedonis DM, Williams JM: Management of Smoking in People with Psychiatric Disorders. *Current Opinion in Psychiatry.* 2003;16(3):305-315.

**SYMPOSIUM 82—ADOLESCENT ALCOHOL USE DISORDERS AND PSYCHIATRIC COMORBIDITY Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to develop an effect treatment strategy for adolescents with comorbid alcohol use disorders and specific psychiatric disorders.

No. 82A

**TRAUMA AND ALCOHOL USE DISORDERS IN ADOLESCENTS: PSYCHIATRIC COMORBIDITY AND ADULT OUTCOMES**

Duncan B. Clark, M.D. *WPIC University Pittsburgh, Psychiatry, 3811 O'Hara Street, Pittsburgh, PA, 15213-2593***SUMMARY:**

Adolescents with alcohol use disorders (AUDs) often have complex histories including childhood maltreatment and other traumas. Physical abuse and sexual abuse (PS Abuse) have been shown to be common in clinical samples of adolescents with AUDs. Research conducted by the Pittsburgh Adolescent Alcohol Research Center

has examined relationships among PS Abuse, AUD, and psychiatric comorbidity in adolescents. Measures have included interview assessments of DSM-IV AUD and major depressive disorder (MDD), classified as "primary" (1°) or "secondary" (2°). In our study, PS Abuse accelerated the onsets of 1°MDD, 2°MDD and AUD. While affected adolescents had typically improved in both alcohol consumption and depression in young adulthood, the majority of those with adolescent AUD had continuing alcohol problems in young adulthood, and depression remained common in those with a history of PS Abuse. These results indicated that MDD among adolescents with AUD may be in large part attributable to PS Abuse.

#### No. 82B

### ASSESSING ALCOHOL PROBLEMS IN ADOLESCENTS WITH PSYCHIATRIC COMORBIDITY

Deborah Deas, M.D. *Medical University of South Carolina, Department of Psychiatry, Charleston, SC, 29425*

#### SUMMARY:

Alcohol is the most common substance of abuse among adolescents. Although the prevalence rate of lifetime alcohol use among adolescents has decreased slightly, the rate of alcohol use disorders and binge drinking is troublesome. The majority of adolescents with an alcohol use disorder have a comorbid psychiatric disorder. In fact, psychiatric comorbidity is the rule rather than the exception. Adequate assessment of alcohol use disorders is essential and knowledge gained through assessment will undoubtedly direct treatment as well as policy decisions. As such, it is important to assess adolescents across multiple domains and implement treatment plans that are specifically designed for the adolescent being treated. This presentation will address the following: assessment domains that are important in evaluating adolescents for alcohol use disorders; psychiatric comorbidity and other factors that place adolescents at risk for alcohol use disorders; the impact of alcohol use disorders and psychiatric comorbidity on treatment outcomes; the use of state-of-the-art assessment instruments and caveats for diagnosing adolescents with alcohol use disorders.

#### No. 82C

### TREATMENT OF ADOLESCENTS WITH ALCOHOL PROBLEMS AND MAJOR DEPRESSION

Jack R. Cornelius, M.D. *University of Pittsburgh, Department of Psychiatry, na, Pittsburgh, PA, 15213-2593*

#### SUMMARY:

**Background:** To date, few treatment studies have been conducted involving adolescents with Major Depression (MDD) in combination with Alcohol Use Disorders (AUD) or other Substance Use Disorders (SUD), and double-blind, placebo-controlled studies are particularly scarce.

**Objective:** To provide preliminary information regarding the efficacy of various treatments for comorbid (AUD/MDD) adolescents.

**Method:** The literature on treatment of comorbid AUD/MDD adolescents will be reviewed, focusing on the presenter's studies.

**Results:** Data from open label studies suggests efficacy for psychotherapy and for the SSRI antidepressant fluoxetine for treating both the depressive symptoms and the alcohol use behaviors of adolescents with comorbid AUD/MDD. Double-blind, placebo-controlled studies of various treatments are currently underway, including the presenter's studies (R01 AA013370, R01 AA015173, R01 DA019142, K24 015320). Preliminary data will be presented from those double-blind studies.

**Conclusions:** Further double-blind, placebo-controlled studies are warranted to better evaluate the efficacy of various treatments for adolescents with Major Depression in combination with AUD and other SUD. Long-term follow-up studies are also warranted to assess the long-term efficacy of those treatments among comorbid adolescents.

#### No. 82D

### WHEN ADHD AND SUBSTANCE USE DISORDERS COLLIDE

Timothy E. Wilens, M.D. *Massachusetts General Hospital, Pediatric Psychopharmacology Research Unit, 55 Fruit Street, Warren 705, Boston, MA, 02114*

#### SUMMARY:

There has been increasing interest in the overlap between Attention Deficit Hyperactivity Disorder (ADHD) and alcohol and drug use disorders (substance use disorders; SUD). In this presentation the developmental relationship between ADHD and SUD and associated concurrent disorders relative to adolescents and young adults will be presented. Recent data on vulnerabilities that ADHD begets on later SUD are presented. Updated information continues to support that the long-term effects of pharmacotherapy of childhood ADHD reduces the risk for later SUD. In contrast, medication treatment of substance abusing individuals with ADHD does not reduce the SUD. Diagnostic and treatment strategies for individuals with ADHD plus SUD are discussed.

#### REFERENCES:

1. Clark DB: The natural history of adolescent alcohol use disorders. *Addiction* 2004; 99: 5-22.
2. Deas D, Thomas S: Comorbid psychiatric factors contributing to adolescent alcohol and other drug use. *Alcohol Res Health* 2002; 26: 116-121.
3. Cornelius JR, Clark DB, Bukstein OG, Birmaher B, Salloum IM, Brown SA: Acute phase and five-year follow-up study of fluoxetine in adolescents with major depression and a comorbid substance use disorder: A review. *Addict Behav*, In Press.
4. Wilens T. ADHD and substance abuse; the nature of the risk, association, and treatment issues; in *Psychiatric Clinics of North America* (ed. T. Spencer), May 2004.

### SYMPOSIUM 83—EDUCATING A NEW GENERATION OF PHYSICIANS IN PSYCHIATRY: FOCUS ON MEDICAL STUDENT EDUCATION

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to: Identify key elements (knowledge, skills, attitudes and values) of medical student education in psychiatry Recognize environmental factors that will impact the content and process of medical student education in psychiatry Describe innovations in medical student education in psychiatry including the barriers and opportunities that facilitated change Develop an action plan for their own educational setting

#### No. 83A

### MEDICAL STUDENT EDUCATION IN PSYCHIATRY: WHERE WE ARE AND WHERE WE CAN GO

Myrl R.S. Manley *Brooklyn, NY, 11201-5518*

#### SUMMARY:

This is a time of considerable flux and challenge to medical education. We strive for high quality effective educational programs

at the same time that we are addressing changing venues for medical education, shrinking resources, increasing faculty service commitments and blurring of the boundaries and content for education in psychiatry. While all medical schools have psychiatry clerkship rotations there is variability in the duration of rotations (4 weeks to 8 weeks), the structure of rotations (psychiatry alone, integrated clerkships with other disciplines etc.) and the focus of the rotation (inpatient experience, liaison activity, live cycle focused-pediatric vs. geriatric etc.). In some settings medical students have worked with psychiatrists and been exposed to the psychiatric/mental health perspective before clerkship while in other settings this has not occurred. This presentation will provide an overview of current psychiatric education nationally as well as offer a perspective on evolving trends and approaches to dealing with ongoing challenges

#### No. 83B

### **MEDICAL STUDENT EDUCATION IN PSYCHIATRY: A MODEL THAT WORKS**

Lowell D. Tong, M.D. *University of California at San Francisco, Psychiatry and Behavioral Sciences, 401 Parnassus Avenue, San Francisco, CA, 94143-0984*

#### SUMMARY:

The Department of Psychiatry at UCSF has had the opportunity to implement an integrated longitudinal experience in Psychiatry that provides medical students with a developmental exposure to psychiatry. This program was developed based on the principles of a core curriculum for all students with additional opportunities for tailoring, a recognition that the informal (hidden curriculum) is as important as the formal curriculum and that educational methods must support and reflect the objectives of the curriculum. Elements of this program include required and elective components. There are required first and second year medicine courses co-directed by psychiatry, a third year psychiatry clerkship integrated with Neurology and opportunities for a third year longitudinal clinical experience. All elements of the program include experiential and didactic learning. An overall curriculum directory and central co-ordination assures an ability to effectively build knowledge, skills and attitudes over the entire curriculum. This presentation will provide a detailed view of the program as well as discuss implementation and sustaining strategies and consider its transferability to other schools.

#### No. 83C

### **MEDICAL STUDENT EDUCATION IN PSYCHIATRY: IMPACTING CAREER CHOICE AND PRACTICE**

Brian A. Palmer, M.D. *MGH/McLean, Department of Psychiatry, Boston, MA*

#### SUMMARY:

Ideally, all medical students will graduate from medical school with an appreciation of the importance and value of psychiatry and a psychiatric perspective. National organizations including the American Medical Students Association (AMSA) and the Association of American Medical Colleges (AAMC) collect data on students' opinions about their medical school experiences. This data provides information on the current strengths and weaknesses of the formal educational experiences. It also offers some insights into the impact of the hidden curriculum. A recent IOM report indicates that education in the behavioral sciences is currently not optimal in medical schools nationally. This presentation will provide both an individual personal perspective and a collective national perspective on psychiatric education for medical students. It will address potential interventions both to assure that medical students recognize the excitement and opportunity of a career in psychiatry and graduate with the

knowledge, skills and attitudes that will assure their application of the psychiatric perspective whatever discipline they enter.

#### No. 83D

### **MEDICAL STUDENT EDUCATION IN PSYCHIATRY: WHAT WE CAN LEARN FROM OTHER DISCIPLINES**

Deborah Danoff, M.D. *4000 Massachusetts Ave, #1204, Washington, DC, 20016*

#### SUMMARY:

Successful design and implementation of medical student education programs requires consideration of each of the following elements: content, educational process, educational setting, trainee assessment and program evaluation. Recent peer reviewed publications and reports from national organizations have identified major factors that impact medical student education including: advances in basic science, societal expectations, diversity of populations served, focus on evidence based practice, changes in settings of care and new perspectives on pedagogy. This paper will review "best practices" in medical student education well as report on a recent invitational colloquium of key opinion leaders on Interdisciplinary Lessons for Medical Student Education in Psychiatry.

#### REFERENCES:

1. Cuff PA, Vanselow NA. Improving Medical Education: Enhancing the Behavioral & Social Science Content of Medical School Curricula. Washington, DC. Institute of Medicine, 2004.
2. Improving Medical Education: Enhancing the Behavioral and Social Science Content of Medical School Curriculum. National Academy of Science. 2004.
3. AAMC Report. Clinical Education of Medical Students. Washington, DC, 2003.
4. Epstein RM, Hundert EM: Defining and Assessing Professional Competence. JAMA 2002 Jan 9; 287 (2) 226-35.

### **SYMPOSIUM 84—PATIENT SAFETY: TO ERR IS HUMAN, TO BE SAFE IS DIVINE APA Committee on Patient Safety**

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to 1. understand and define the concept of patient safety 2. recognize ways to prevent adverse events, including suicide 3. demonstrate competence in teaching patient safety to residents and medical students

#### No. 84A

### **LENGTH OF STAY IN THE PSYCHIATRIC EMERGENCY ROOM OF AN URBAN TEACHING HOSPITAL**

Patrick T. Triplett, M.D. *Johns Hopkins University, Department of Psychiatry, Meyer 279, Johns Hopkins Hospital, 600 N. Wolfe St, Baltimore, MD, 21287*

#### SUMMARY:

Despite recent trends suggesting that patients are using outpatient services more frequently, use of emergency rooms has also continued to rise. This increase in emergency room visits comes in the setting of an ongoing decline in the number of available psychiatric inpatient beds nationally and has led to longer length of stay in the emergency room for psychiatric patients. Increased length of stay often means

crowding of patients in ERs which are not always staffed to handle psychiatrically ill populations. Crowding, as has been demonstrated in studies of inpatient units, has been linked with increased incidents of aggression. Crowding and longer length of stay are also inconvenient for patients, staff and families and may lead to suboptimal care.

As part of a hospital-wide patient safety initiative, our department chose length of stay in the emergency department as one of the key goals for improvement. We chose to implement two primary interventions: twice daily rounds with an attending physician from the department of psychiatry on weekdays and a switch to 24 hour nursing coverage by trained psychiatric nurses from a general psychiatry unit. We will examine the impact these changes have had on length of stay in the emergency room for psychiatrically ill patients and comment on length of stay as a marker for quality of care.

#### REFERENCES:

1. National Center for Health Statistics. Health, United States, 2004, With Chartbook on Trends in the Health of Americans. Hyattsville, MD: 2004.
2. Ng, Bradley et al: Ward Crowding and Incidents of Violence on an Acute Psychiatric Inpatient Unit. *Psychiatric Services* 2001; 52(4): 521-525.

#### No. 84B

### A PRIMER FOR PRESCRIBING: HOW TO PREVENT MEDICATION ERRORS

Kathryn J. Ednie, M.D. *Center for Forensic Psychiatry, P. O. Box 2060, Ann Arbor, MI, 48106-2060*

#### SUMMARY:

Medication use is a complex process involving a number of systems and disciplines. A review of death certificates in the United States found over 7,000 deaths in 1993 were from medication errors, an over eight fold increase in outpatient medication related deaths over the previous 10yrs and an over 2 fold increase in inpatient deaths over the same period .

Errors can occur anywhere in this multi-step process, which includes selection of medications, ordering, transcribing, preparing, dispensing, administering or monitoring . To decrease medication errors a number of steps should be taken. These include: monitoring for possible drug interactions, adjusting dosages as needed for children and the elderly, limiting the use of abbreviations, encouraging legible orders and monitoring for possible confusion of look-alike, sound-alike medications. Hospitals are required to establish procedures for the safe use of high risk medications, such as controlled substances and medications with a narrow therapeutic range. Phone orders are an error prone process, so a read-back of the order helps reduce error likelihood. Monitoring the individual patient response as well as the hospital processes through reporting of medication errors and adverse events helps identify actual or potential medication related problems. This presentation will review the medication process; identify factors that contribute to errors and make recommendations for interventions to increase the safety of medication treatment.

#### No. 84C

### EDUCATING FACULTY AND RESIDENTS ON PATIENT SAFETY

Carl B. Greiner, M.D. *Nebraska Medical Center, Department of Psychiatry, 12731 Burt St, Omaha, NE, 68154*

#### SUMMARY:

Risk management is an increasingly important aspect of contemporary clinical practice. Residents and medical students need to be attentive to the major areas of psychiatric malpractice that includes patient suicide, missed diagnosis, adverse drug events, boundary

violations, inappropriate usage of restraints, and patient abandonment. Although these topics have tended to be taught through clinical lore during a residency, the adept educator will need to address these topics in a more organized manner. Background material on system errors, error prone situations, lapses, slips, and mistakes are valuable introductions for students and residents. Teaching how to recognize and address error situations is an essential part of patient safety. Attention to disclosing errors to patients and families will be included. Appreciating aspects of patient safety is contained within the six basic competencies of all residents.

#### No. 84D

### SUICIDE AND PATIENT SAFETY

Geetha Jayaram, M.D. *Johns Hopkins University, School of Medicine, Department of Psychiatry, Meyer 4-181, Johns Hopkins, Baltimore, MD, 21287*

#### SUMMARY:

**Background:** Multiple systemic factors complicate psychiatric care delivery. Among contemporaneous factors are the fiscal burden of rising health care costs, its daily impact on patient care through rationing of clinical time, physician stress in rapidly assessing and discharging patients, fewer community resources for the severely mentally ill, and the use of less skilled personnel to assist in care delivery. Preventing suicide is a major concern of the Committee on Patient Safety.

**Method and Results:** Medline and Psych-lit search for articles on suicide pertinent to the concept of safety yielded results classifiable into several categories: 1.prediction and prevention of suicide in inpatient and discharged patients; 2. demographics ; 3.gender differences in suicidal behavior; 4. temporal relationships with respect to admission/ discharge; 5. diagnoses; 6. cultural factors; 7. recommended interventions.

**Conclusions:** Integrating assessment of risk profiles into daily practice, reducing barriers to complete and timely care, understanding diverse cultural norms, applying accurate medication- related and psychotherapeutic interventions to render care safely will be discussed.

Successful methods of teaching residents and faculty will be described.

The American Psychiatric Association guidelines for suicide assessment are a comprehensive guide for clinicians in providing safe care.

#### No. 84E

### YOUR ROLE AND ALL OF OUR ROLES IN MAKING PATIENT SAFETY A BIGGER REALITY

Alfred Herzog, M.D. *Hartford Hospital, Psychiatry/Administration, 80 Seymour St, Hartford, CT, 06102-5037*

#### SUMMARY:

In 2000, the Institute of Medicine report, "To Err is Human" <sup>(1)</sup> highlighted the need for American medicine to become more patient safety conscious. In response, the APA created a Patient Safety Committee and set 3 national goals: (1)decrease adverse drug events, (2)decrease inpatient suicides and (3)promote safe use of seclusion and restraints. Committee members wrote and published a number of patient safety articles (Grasso <sup>(2)</sup>, Herzog <sup>(3)</sup>).

Progress continues on all these fronts, but the Patient Safety Committee feels strongly that the time has come to engage more psychiatrists in the patient safety journey and that the Patient Safety Committee move from the 'classroom to the masses.'

**Objectives:** As a result of this presentation, the participant (1)will have a better understanding of the complexities of patient safety

(2) will gain insights into practicing safer medicine at both the solo and system level and (3) will learn tools to become a patient safety champion in his/her own clinical practice.

Summary: While the 2000 IOM report "To Err Is Human" tells of grim statistics--up to 100,000 preventable patient deaths each year, and countless more preventable injuries due to medical errors of all kinds annually--we all know that statistics do not change behavior. Compelling stories and people do.

This presentation focuses on two such stories involving this presenter. The first involves Rebecca and this psychiatrist who was then in a solo practice. Rebecca died as a result of a preventable medication error. The second involves a hospitalized elderly male patient's severe injuries sustained as a result of a hospital's multiple system failures. The same psychiatrist is now that hospital's VPMA. Each case example will focus on what each of us can do as individuals or in systems of care to increase patient safety.

Rebecca's death occurred when she ingested all of the prescribed antidepressants at once--too large an amount of pills for a suicidal patient. I will describe how that event changed my life and made me a champion for patient safety and some of the 'tools' each of us needs to use even (or especially) in a solo practice, to provide maximal safe care.

The second case will illustrate (1) the need in a hospital or any system of care delivery to build into that care delivery independently redundant processes, (2) will illustrate the breakdown and the importance of good communication among members of the treatment team and (3) demonstrate the overwhelming importance of culture and culture change in achieving an outstanding safety program and highlight some of the methods to achieve that change.

#### REFERENCES:

1. Ng B et al: Ward Crowding and Incidents of Violence on an Acute Psychiatric Inpatient Unit. *Psychiatric Services* 2001; 52(4): 521-525.
2. Kohn LT, Corrigan JM, Donaldson, MS: *To err is human: building a safer health system* Washington, DC, National Academy of Sciences, 2000.
3. Rosenthal MM, Sutcliffe KM. *Medical Error: What do we know? What do we do?* San Francisco: Jossey-Bass, 2002.
4. *Reducing Suicide: A National Imperative*. The Institute of Medicine, The National Academy Press, Washington DC, Copyright 2002.
5. Herzog, A., "Office Based Patient Safety: All our Role," *Psychiatric News*, Viewpoint Column, October 17, 2003.
6. Institute of Medicine, "To Err Is Human," 2000, National Academy of Science
7. Grasso BC, Bates DW. Related Articles, Links Medication Errors in Psychiatry: Are Patients Being Harmed? *Psychiatr Serv*. 2003 May; 54(5): 599. No abstract available PMID: 12719488 [PubMed-indexed for MEDLINE]
8. Herzog, A., "Office Based Patient Safety: All Our Role," *Psychiatric News*, Viewpoint Column, October 17, 2003

## SYMPOSIUM 85—RELATIONSHIPS BETWEEN AXIS I AND AXIS II Association for Research in Personality Disorders

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant would be expected to gain a better understanding of relationships of Axis I and II disorders in the areas of biology, psychotherapy, phenomenology, diagnosis and treatment.

#### No. 85A

### STATE AND TRAIT IN PERSONALITY DISORDERS

James H. Reich, M.D. *Stanford Medical School, Department of Psychiatry, 2255 North Point Street, 102, San Francisco, CA, 94123*

#### SUMMARY:

Objective: This report examines the possibility that there is a valid psychiatric disorder whose key feature is episodic personality dysfunction. The current definitions of personality disorder indicate early onset, long lasting and disorders of relatively stable severity. However, there is a literature indicating that at times personality pathology can be quite variable and not fit that model. This presentation postulates a disorder that would be designated State personality disorder (State PD) to separate it from Trait personality disorder (Trait PD), which is the non episodic form and from no personality disorder (No PD). This report examines criteria might be necessary to validate such a diagnosis.

Procedures: Relevant literature to this concept is reviewed.

Summary of findings: State personality disorder it has been identified in two distinct populations and there is supportive evidence from other studies. In the cases where it can be identified it can be distinguished from its near neighbor disorders of Trait PD and No PD. The family history method of personality clusters distinguishes State PD from its near neighbors and provides a possible biological marker for the disorder. In two separate populations the disorder is related to an independent measure of the hypothesized underlying personality construct. It appears that clinical variables may distinguish State PD from its near neighbor diagnoses. State PD appears to have a negative relationship to suicidal ideation and might affect the course of treatment of comorbid Axis I disorders.

Conclusions: It is concluded that State PD likely represents a valid diagnostic entity worthy of further study.

#### No. 85B

### SPECTRA OF PATHOLOGY ACROSS AXIS I AND AXIS II DISORDERS

David P. Bernstein, Ph.D. *Maastricht University, Department of Medical, Clinical, and Experimental Psychology, Picardelaan 27, Maastricht, 6213, Netherlands Antilles*, David Watson, Ph.D., Lee Anna Clark, Ph.D., Arnoud Arntz, Ph.D.

#### SUMMARY:

Objective: Increasing evidence suggests that personality disorders are better represented as dimensions of pathology rather than traditional diagnostic categories. However, few attempts have been made to investigate the dimensional nature of Axis I disorders, or spectra of illness than cut across Axis I and Axis II. This study is the first to examine these issues using both Axis I disorders and the full range of Axis II disorders in a large, representative clinical population.

Method: 2,122 patients consecutively admitted between 1987 and 2004 to the RIAGG Maastricht, a regional ambulatory mental health facility in the Netherlands, were given the SCID I and SCID II interviews, for Axis I and II, respectively. 616 of the patients were assessed for DSM-III-R disorders, and 1,506 for DSM-IV disorders. 43 clinicians with extensive SCID training administered the interviews. Inter-rater reliabilities for the various disorders were satisfactory to excellent.

Results: Structural equation modeling will test a variety of dimensional models using the Axis I and Axis II data.

Conclusions: This study may reveal spectra of pathology that prove valuable in future studies of the pathogenesis, neurobiology, and genetics of psychiatric disorders. Moreover, studies such as this one may move future editions of the DSM in the direction of a more empirically based system of classification.

No. 85C

**ETIOLOGICAL RELATIONSHIPS AMONG DIMENSIONS OF PERSONALITY DISORDER AND AXIS I SYNDROMES**John Livesley, Ph.D. *University of British Columbia, Department of Psychiatry, 2255 Wesbrook Mall, Vancouver, BC, V64 1L1***SUMMARY:**

Within the DSM tradition clinical syndromes are assumed to be conceptually distinct from personality disorders. Despite this assumption, extensive relationships and patterns of co-occurrence occur between axes. This paper examines the extent to which these patterns of co-occurrence reflect underlying etiological factors that are common to personality disorder and common Axis I syndromes.

Phenotypic analyses of personality disorder traits consistently identify 4 broad factors underlying individual differences in personality pathology: an emotional dysregulated cluster of traits, a dissociative or psychopathic cluster, socially withdrawn or inhibited traits, and compulsivity. Behavioral genetic studies indicate that these factors reflect the underlying genetic architecture of personality disorder. Twin studies also suggest that the emotional dysregulation and dissociative behavior dimensions are systematically related to Axis I disorders. Evidence that dissociative behavior is related to both antisocial personality disorder and substance abuse disorders will be examined along with evidence on the relationship of emotional dysregulation to anxiety and mood disorders and borderline personality disorder. Discussion will focus on the implications of these findings for the classification of personality disorder and the distinction between Axes I and II.

No. 85D

**A COMPARISON OF MU-OPIOID RECEPTOR ACTIVITY IN DEPRESSED SUBJECTS AND IN SUBJECTS WITH BPD**Kenneth R. Silk, M.D. *University of Michigan, Psychiatry, 1500 E Medical Center Dr, Psychiatry MCHC-6, Box 0295, Ann Arbor, MI, 48109-0295*, Susan E. Kennedy, B.S., Sujata Guduri, M.A., Jon-Kar Zubieta, M.D.**SUMMARY:**

There has been interest for more than twenty years as to the possible overlap between borderline personality disorder (BPD) and mood disorders. While initial attention was focused on the overlap between BPD and MDE, current attention has also focused on the possible overlap between BPD and Bipolar Disorder (I or II). In our PET study of mu-opioid receptor activity in reaction to self-recall of sad events, differences between depressed subjects and patients with BPD emerged. BPD subjects showed deactivation in response to sadness in the left and right pallidum, right orbitofrontal cortex, and left amygdala which appeared more similar to the controls than the MDD subjects. But similar to the MDD subjects, BPD subjects showed activation in response to sadness in the right amygdala, bilateral hypothalamic and subthalamic areas, left caudate, and right anterior temporal cortex. Of further interest was the types of memories the two groups chose to induce sadness. In the MDD group, 68% (10/16) of the memories dealt with death or severe illness of close friends or family while in the BPD cohort only 38% (3/8) of the subjects utilized memories in this category. In the BPD cohort, 25% of the memories related to the death of a PET (2/8) while no subjects with MDD utilized this potential sad memory. Thirteen percent (1/8) of the BPD subjects and 19% (3/16) of the MDD subjects thought of a relationship break-up when asked to induce in themselves a state of sadness. These preliminary results suggest that subjects with BPD conceptualize sadness in ways different from

subjects with MDD and may utilize some different brain regions when processing and dealing with sadness.

No. 85E

**A NEUROBIOLOGIC PERSPECTIVE ON THE RELATIONSHIP BETWEEN AXIS I AND AXIS II DISORDERS**Larry J. Siever *Mt. Sinai School of Medicine, Department of Psychiatry, Irvington, NY, 10533***SUMMARY:**

While Axis I disorders are defined in terms of symptom-based syndromes and Axis II disorders are defined in terms of enduring maladaptive personality traits, there may be common underlying biologic susceptibility factors for both the Axis I and Axis II disorders as well as distinguishing neurobiologic underpinnings. While Axis I disorders are defined in terms of symptoms that are often episodic, enduring symptoms can be observed, for example, in chronic psychotic disorders such as schizophrenia. On the other hand, symptoms as well as traits are part of the criteria for a variety of personality disorder including schizotypal and borderline personality disorder. The usefulness of a dimensional model will be discussed. Specific empirical examples of neurobiologic studies in borderline personality disorder in reference to underlying dimensions of affective instability and impulsivity, their neurobiologic underpinnings, and their differential expression in Axis I and Axis II disorders will be presented. Significant activation in limbic regions including amygdala in response to provocation may discriminate patients with affective instability from controls, while reduced cortical constraints may characterize patients with impulsive aggression.

**REFERENCES:**

1. Reich J: State and Trait in Personality Disorders. In *Personality Disorders, Research and Treatment*, edited by Reich J, Routledge, 2005 (ISBN number 0415950740).
2. Watson D, Gamez W, Simms L: Basic dimensions of temperament and their relation to anxiety and depression: A symptom-based perspective. *Journal of Research in Personality* 2005; 39: 46-66.
3. Jang KL., Livesley WJ, Vernon PA. Alcohol and drug problems: A multivariate behavioral genetic analysis of comorbidity. *Addiction*, 1995; 90: 1213-1221.
4. Zubieta JK, Ketter TA, Bueller JA, et al: Regulation of human affective responses by anterior cingulate and limbic mu-opioid neurotransmission. *Arch Gen Psychiatry* 2003; 60:1145-1153.
5. Siever LJ, Torgersen S, Gunderson JG, Livesley WJ, Kendler KS: The borderline diagnosis III: Identifying endophenotypes for genetic studies. *Biol Psychiatry* 51:964-968, 2002.

**SYMPOSIUM 86—SCIENCE TO POLICY: ADVANCING WOMEN'S MENTAL HEALTH Association of Women Psychiatrists****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to demonstrate knowledge of science base related to promoting effective treatments for women's mental health issues

No. 86A

**SCIENCE TO POLICY: PSYCHIATRIC ASPECTS OF REPRODUCTIVE HEALTH**Nada L. Stotland, M.D. *Rush Medical College, Department of Psychiatry, 5511 S. Kenwood Ave., Chicago, IL, 60637*

**SUMMARY:**

Many of the current crucial and contentious questions at the interface of science and policy also lie at the interface of psychiatry and obstetrics and gynecology. Genetic information especially affects women, as bearers of children. Contraception, including emergency contraception, abortion, sterilization, obstetrical interventions, and punitive approaches to pregnant women with substance abuse problems, have raised scientific questions about safety and technique which translate directly into public policy. While reproduction should not be construed as the only organizing experience in women's lives and psychiatric well-being, these issues affect many psychiatric patients and need to be brought into the therapeutic dialogue. Distinguishing scientific findings from powerful and valid personal values will help psychiatrists to help patients and to play useful roles in the formation of public policy.

**No. 86B  
PTSD IN WOMEN VETERANS: FROM SCIENCE TO POLICY**

Marian I. Butterfield, M.D. *Durham VA Medical Center, Department of Psychiatry, 508 Fulton St. 116A, Durham, NC, 27705*

**SUMMARY:**

This presentation will draw from research with women veterans who have experienced military sexual trauma (MST) and related PTSD. The presentation will highlight how science can shape policy to improve mental health service delivery to women. First, the relationship between sexual victimization and PTSD will be reviewed. For example, life threatening interpersonal traumas such as rape are associated with a 8.5-fold increase in PTSD risk as compared to other types of trauma. Next, the high rates of MST in women veterans that led to congressionally mandated screening for MST among all veterans will be discussed. For active duty women in the military, at least 6% have experienced sexual assault, and 78% have experienced military sexual harassment. Similarly, 23% of women seen at a VA hospital reported a history of military sexual assault and 55% reported a history of military sexual harassment. In 2002, the VA implemented a formal reporting system to monitor screening for MST and later, a formal mechanism for reporting these results to. Finally, the policy and mental health service implications of a national tracking mechanism of identified cases of MST will be discussed.

**No. 86C  
PREMENSTRUAL DYSPHORIC DISORDER:  
TREATMENT UPDATE**

Tana A. Grady-Weliky, M.D. *University of Rochester SMD, Department of Psychiatry, 300 Crittenden Blvd. Box PSYCH-Geri/Neuro, Room 1-9021Q, Rochester, NY, 14642*

**SUMMARY:**

Premenstrual syndrome (PMS) is composed of emotional and physical symptoms that come in a wide range of severity. Approximately 75% of menstruating women have reported experiencing one or more mild premenstrual symptoms including irritability, mood swings, depression or anxiety that may be accompanied by physical symptoms such as bloating, weight gain, headache, joint or muscle aches and fatigue. A smaller percentage (5-8%) of women experience marked depressed mood, irritability or anxiety during the premenstrual period in addition to several of the previously mentioned physical symptoms. The hallmark of both PMS and PMDD is demonstrated onset of symptoms during the luteal phase of the menstrual cycle and an absence of symptoms within the follicular phase of the menstrual cycle. In addition to the severity of illness, there are distinct differences between PMS and PMDD with regard to diagnosis and

treatment strategies. This presentation will address up-to-date diagnostic and treatment strategies for women with premenstrual dysphoric disorder.

**No. 86D  
NEUROACTIVE STEROIDS IN MEN AND WOMEN:  
INVESTIGATIONS IN SCHIZOPHRENIA, BIPOLAR  
DISORDER, AND ALZHEIMER'S DISEASE**

Christine E. Marx *Duke University, Department of Psychiatry, TBD, Durham, NC, 27705*

**SUMMARY:**

**Objective:** Neuroactive steroids (NS) can be synthesized in the periphery or brain (neurosteroids) and rapidly alter neuronal excitability by acting at membrane-bound ligand-gated ion channel receptors, including inhibitory GABA<sub>A</sub> and/or excitatory NMDA receptors, among others. A number of NS demonstrate neuroprotective effects and are regulated differently in males and females. Several neuropsychiatric disorders demonstrate gender differences in clinical course. We therefore investigated neuroactive steroids in schizophrenia, bipolar disorder and Alzheimer's disease as candidate modulators of gender differences in these disorders.

**Method:** Two tissue collections were analyzed for NS by gas chromatography/mass spectrometry preceded by HPLC: 1.) Posterior cingulate and parietal cortex from subjects with schizophrenia, bipolar disorder, non-psychotic depression, and control subjects (n=14-15 per group) from the Stanley Neuropathology Consortium, and 2.) Prefrontal cortex tissue (n=14-15 per group) and temporal cortex tissue (n=40-42 per group) from subjects with Alzheimer's disease and cognitively intact control subjects from the Bryan Alzheimer's Disease Research Center at Duke University.

**Results:** Both pregnenolone and DHEA levels were elevated in patients with schizophrenia and bipolar disorder compared to control subjects in posterior cingulate and parietal cortex. When subjects were analyzed separately by gender, these significant alterations persisted in male but not female patients with these disorders. Allopregnanolone levels were significantly decreased in subjects with Alzheimer's disease compared to control subjects in both prefrontal cortex and temporal cortex, and inversely correlated with neuropathological disease stage.

**Conclusions:** Neuroactive steroids are altered in patients with schizophrenia, bipolar disorder, and Alzheimer's disease in more than one brain region. In patients with schizophrenia and bipolar disorder, these changes may be sex-specific and relevant to gender differences observed in these disorders.

**No. 86E  
ETHNIC AND RACIAL DISPARITIES IN WOMEN'S  
MENTAL HEALTH**

Annelle B. Primm, M.D. *American Psychiatric Association, Office of Minority/National Affairs, 1000 Wilson Boulevard, Arlington, VA, 22209*

**SUMMARY:**

This presentation will address the mental health disparities experienced by U.S. women of African, Asian, Latino, and Native American descent. The presenter will examine help seeking, diagnosis, treatment and outcomes among women who are members of underserved racial and ethnic groups. Social, economic and political underpinnings of these disparities will be addressed. This will inform a discussion of the research and policy agenda needed to achieve the goal of optimal mental health and quality of life for all U.S. women.



## REFERENCES:

1. Stotland N, Stewart D, eds. *Psychological Aspects of Women's Health Care*, APPI, Washington DC, 2002.
2. 1) Butterfield MI, Becker ME, Marx CE. PTSD in women: current concepts and treatment. *Current Psychiatry Reports*. 4(2):474-485, 2002.
3. Grady-Weliky, TA: Premenstrual dysphoric disorder. *New Engl J Med* 2003.
4. Marx CE, Shampine LJ, Stevens RD, Morrow AL, et al. Neuroactive Steroid Alterations in Posterior Cingulate and Parietal Cortex in Subjects with Schizophrenia and Bipolar Disorder: Potential Gender Specificity. *Biological Psychiatry Meeting* 2005.
5. Williams DR: Race stress and mental health. In *Minority Health in America*, edited by Hogue CJR, Hargraves, MA, Collins, KS, Baltimore, MD, Johns Hopkins University Press, 2000, pp209-243.

## SYMPOSIUM 87—ALCOHOL, DRUGS, AND PSYCHIATRIC DISORDERS IN THE U.S. Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

## EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to understand the relationships between alcohol and drug use disorders and psychiatric disorders and the clinical implications of that comorbidity; to understand the impact of antisocial personality disorder on the course of alcohol use disorders; and to understand the nosological and clinical implications of cannabis withdrawal.

### No. 87A COMORBIDITY OF PAIN AND SUBSTANCE USE DISORDERS IN THE U.S.

Wilson M. Compton, M.D. *NIH/NIDA, Division of Epidemiology, Services and Prevention Research, 6001 Executive Boulevard, MSC 9589, Bethesda, MD, 20892-9589*

## SUMMARY:

**Background:** Little research has been conducted on the intersection of pain with substance use disorders and mental disorders. How many people suffer from significant pain? What are the socio-demographic correlates? How much is pain associated with mood disorders, anxiety disorders, personality disorders and substance use disorders?

**Methods:** Data come from the National Epidemiological Study of Alcohol and Related Conditions, a nationally representative study of U.S. household population ages 18 and older (N = 43,093). Rates of pain were calculated for the whole population and according to sociodemographic subgroups as well as according to the presence/absence of substance misuse and multiple DSM-IV disorders: alcohol, tobacco and specific drug disorders, personality disorders, mood disorders, and anxiety disorders. The measurement of pain was based on self-report of functional impairment during the past four weeks because of somatic pain. Multinomial regression was used to estimate the strength of the association between pain and each of the possible risk factors, adjusting for the presence of the other conditions (i.e. all the co-morbidities).

**Results:** Pain is very common: 34.8% of the adult U.S. population (71.2 million persons) report functional impairment in the past four weeks due to pain and 12.2% (25.0 million persons) report "quite a bit" or "extreme" levels of impairment. Pain is more commonly reported by women and older age groups. African Americans are

more likely than whites to report pain; while Hispanic ethnicity is not associated with significant differences. Presence of mood disorders, anxiety disorders, and personality disorders is associated with increasing reports of pain. Substance misuse and substance disorders are inconsistently associated: controlling for comorbidity, only tobacco use and dependence and opioid misuse and opioid disorders are significantly related to pain. Alcohol and other illicit substance misuse and disorders are not.

**Discussion:** This is the first epidemiological study of the U.S. population to address the relationship of pain to psychiatric and substance use disorders. Findings indicate that most psychiatric disorders are associated with reports of pain. Tobacco use and dependence as well as opioid misuse and opioid abuse and dependence were also found to be associated with pain. Limitations of the study include minimal measures of the pain phenomena, lack of assessment of chronic health conditions which might be responsible for the pain, and concerns about how the diagnosis of abuse and dependence apply to persons who may be prescribed opioids for long periods of time. Future work will need to disentangle the factors which mediate the relationship of pain and substance use disorders. Is the relationship with tobacco use and dependence due to the analgesic properties of nicotine? Is the relationship with opioid use and disorders due to a risk for injury and suffering pain? Perhaps persons in pain are at higher risk for being prescribed opioids and some portion of these individuals will develop the typical problems of opioid misuse and addiction. For clinicians and clinical researchers, a goal will be to balance the obvious benefits of opioids for controlling pain with the risk of abuse or dependence in vulnerable individuals.

### No. 87B ANTISOCIAL PERSONALITY DISORDER AND LIFETIME COURSE OF ALCOHOL USE DISORDERS IN THE U.S. GENERAL POPULATION

Rise B. Goldstein, Ph.D. *NIH/NIAAA, LEB, 5635 Fishers Lane, Bethesda, MD, 20892-7003*, Bridget F. Grant, Ph.D., Wilson M. Compton III, M.D.

## SUMMARY:

**Background:** Antisocial personality disorder (ASPD) is frequently comorbid with alcohol use disorders (AUDs) and has been associated with a more pernicious course and poorer response to treatment for AUDs among clinically ascertained samples. However, little is known about associations of DSM-IV ASPD with lifetime course of DSM-IV AUDs in the general population.

**Methods:** Data come from Wave 1 of the National Epidemiologic Survey on Alcohol and Related Conditions, a nationally representative study of the noninstitutionalized U.S. population 18 years and older (N=43,093). Detailed information on alcohol use, and lifetime prevalences of DSM-IV disorders including ASPD and AUDs, were estimated using the Alcohol Use Disorders and Disabilities Interview Schedule. Crosstabulations, *t*-tests, and multivariable normal-theory and logistic regression models were used to estimate the associations between ASPD and lifetime course of alcohol dependence and alcohol abuse.

**Results:** ASPD was present in 14% of respondents with alcohol dependence and 5% of those with alcohol abuse but no dependence. Respondents with ASPD and alcohol dependence reported significantly earlier onset, more episodes, longer durations, and consumption of significantly larger amounts of ethanol during period of heaviest drinking than respondents with dependence but no lifetime histories of antisocial behavior. Respondents with ASPD and alcohol abuse reported significantly earlier onset and higher levels of consumption during periods of heaviest drinking, but did not differ on number of episodes or durations from those with abuse and no lifetime antisocial behavior. Comparisons of respondents with ASPD

to those with conduct disorder, or adult antisocial behavior without conduct disorders, yielded mixed results.

**Discussion:** Consistent with results obtained under earlier diagnostic systems from clinical samples, DSM-IV ASPD was associated with a more pernicious lifetime course of AUDs in the general U.S. population, more strongly for dependence than for abuse. Future work is indicated to examine associations of ASPD with help-seeking for AUDs and identify optimal approaches for engaging and retaining individuals with AUD-ASPD comorbidity in effective treatments.

**No. 87C  
PREVALENCE, CORRELATES, AND COMORBIDITY  
OF ACOHOL USE DISORDERS IN THE U.S.**

Frederick S. Stinson, Ph.D. *NIH/NIAAA, LEB, 5635 Fishers Lane, Room 3075, Rockville, MD, 20892-7003*

**SUMMARY:**

**Background:** Little research has been conducted on the correlates and comorbidity of alcohol use disorders with other Axis I and II psychiatric disorders. What is the prevalence of alcohol use disorders among major sociodemographic subgroups of the population? What other psychiatric disorders co-exist with alcohol use disorders? What can we say about the course and treatment of alcohol use disorders?

**Methods:** Data come from the National Epidemiologic Survey on Alcohol and Related Conditions, a nationally representative study of U.S. household population ages 18 and older (N=43,093). Prevalence and correlates of 12-month and lifetime DSM-IV alcohol use disorders were examined for the total sample and sociodemographic subgroups of the sample. Logistic regression analyses were used to examine the associations between alcohol use disorders and other Axis I and II disorders. Onset of alcohol use disorders was examined through hazard rates methodology.

**Results:** The prevalences of lifetime and 12-month alcohol use disorders were 30.3% and 8.5%. Being male, Native American, young, or never married or living in the Midwest increased risk for alcohol use disorders and being Black or Asian decreased risk. Alcohol dependence, but not alcohol abuse, was highly associated with other Axis I and II disorders.

**Discussion:** Alcohol use disorders are the most prevalent psychiatric disorders in the United States. The high degree of comorbidity between alcohol use disorders and other psychiatric disorders highlights the need for assessment of other psychiatric disorders among those with alcohol use disorders.

**No. 87D  
PREVALENCE, CORRELATES, AND  
COMORBIDITY, OF NONMEDICAL SEDATIVE,  
TRANQUILIZER, OPIOID, AND AMPHETAMINE  
USE, ABUSE, AND DEPENDENCE IN THE U.S.**

Bridget F. Grant, Ph.D. *NIH/NIAAA, LEB, 5635 Fishers Lane, Room 3077, Bethesda, MD, 20892-7003*

**SUMMARY:**

**Background:** There is no current information on the prevalence, correlates and comorbidity of DSM-IV nonmedical sedative, tranquilizer, opioid, or amphetamine prescription drug use disorders in the United States.

**Methods:** Data from the National Epidemiologic Survey on Alcohol and Related Conditions, a nationally representative survey of the United States household and group quarters population was used. The prevalence, sociodemographic and clinical correlates and comorbidity of DSM-IV nonmedical prescription drug use disorders were estimated. Linear logistic regression analyses were used to examine

the associations between each nonmedical drug use disorder and other Axis I and II psychiatric disorders.

**Results:** The prevalence of nonmedical sedative, tranquilizer, opioid, and amphetamine use disorders were 4.1%, 3.4%, 4.7%, and 4.7%, respectively in the U.S. population. Males, Native Americans, younger respondents, and those who never married were at greater risk for nonmedical prescription drug use disorders, while Asians, Blacks and Hispanics were at significantly lower risk. Each nonmedical prescription drug use disorder was most highly correlated with other illicit drug use disorders, alcohol use disorders, and antisocial personality disorder.

**Discussion:** Nonmedical sedative, tranquilizer, opioid, and amphetamine use disorders are pervasive in the U.S. population. Individuals who abuse or are dependent on these controlled substances are highly likely to have comorbid alcohol and other drug use disorders, suggesting that individuals presenting with these disorders be assessed for concomitant abuse and dependence on other substances.

**No. 87E  
CANNABIS WITHDRAWAL SYNDROME IN 2613  
LIFETIME HEAVY CANNABIS USERS FROM A  
NATIONAL SURVEY: SYMPTOM PREVALENCE,  
FACTOR STRUCTURE, AND CORRELATES**

Deborah S. Hasin, Ph.D. *Columbia University, Department of Psychiatry and Epidemiology, 1051 Riverside Drive, Box 123, New York, NY, 10032*

**SUMMARY:**

**Background:** Although no withdrawal criteria for cannabis are listed in DSM-IV, cannabis abusers are increasingly seeking treatment, the potency of cannabis has increased over the last decade, and clinical reports of cannabis withdrawal symptoms are emerging (Budney et al., 2004). A better understanding of cannabis withdrawal symptoms is important to improve treatment, to investigate the etiology of cannabis use disorders and to create better diagnostic systems, such as DSM-V. **Methods:** To investigate the existence and interrelationships between cannabis withdrawal symptoms in a large nationally representative sample, we studied the prevalence and latent variable structure of lifetime cannabis withdrawal symptoms, as well as predictors of latent variable structure using known risk factors for cannabis use disorders among 2613 lifetime heavy cannabis users who participated in the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) survey. Subjects were interviewed using a structured interview format (AUDADIS-IV). Heavy use was defined as using cannabis three or more times per week during period of heaviest use. We used Mplus to conduct weighted factor analyses of 16 potential symptoms and a confirmatory factor analysis with covariates (MIMIC model) to analyze predictors of factors. **Results:** Results indicated wide variability in the prevalence of symptoms after ceasing cannabis use in this group. The most common symptoms were being feeling weak or tired (28%), sleeping more (24%), psychomotor retardation (21%), and anxiety (16%). A two-factor, 11-symptom model fit the data best ( $X^2=24.9$ ,  $df=21$ ,  $p=0.25$ ,  $RMSR=0.04$ ). One factor consisted of "slowness" symptoms (increased sleep, feeling weak/tired, yawning), with factor loadings of .80, 1.01 and .67, respectively. The other factor consisted of "depression/anxiety" symptoms (depression, sweating/heart beating, lacrimation, anxiety, muscle aches, restlessness, shaking and insomnia) with factor loadings of .60, .70, .54, .79, .83, .83, .94, and .87 respectively. The two factors were moderately correlated ( $r=.64$ ). Both factors were predicted by: duration (weeks) of use during heaviest period of use, number of joints smoked during heaviest period of use, family history of drug use, history of drug treatment, history of major depression, and heavy use of another drug during the lifetime. The "depression/anxiety" factor was also predicted by a history of panic disorder. **Results** indicate that cannabis withdrawal

symptoms are highly prevalent among heavy cannabis users in the general population, and are defined by two factors indicated by "Slowness" and "Anxiety". Discussion. Clinicians should be aware of the possible effects of abrupt discontinuation of cannabis, and the evidence adds to the growing research demonstrating that future nosologies should include cannabis withdrawal syndrome to encourage treatment development. Investigation of the implications of cannabis withdrawal for the etiology and chronicity of cannabis dependence is warranted. Future studies should also address whether distinct biological mechanisms underlie the two factors of the cannabis withdrawal symptoms.

#### REFERENCES:

1. Compton WM, Volkow ND. Major increases in opioid analgesic abuse in the United States: Concerns and strategies. *Drug Alcohol Depend.* 2005 Jul 12; [Epub ahead of printing].
2. Kranzler HR, Rosenthal N. Dual diagnosis: alcoholism and comorbid psychiatric disorders. *Am J Addict.* 2003;12 Suppl 1:S26-40.
3. Grant BF, Dawson DA, Stinson FS, et al. The 12-month prevalence and trends of DSM-IV alcohol abuse and dependence: United States 1991-1992 and 2001-2002. *Drug and Alcohol Dependence* 2004; 74:223-234.
4. Grant BF, Stinson FS, Dawson DA, et al. Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: results from the NESARC. *Archives of General Psychiatry* 2004; 61:807-816.
5. Budney AJ, Hughes JR, Moore BA, Vandrey R. Review of the validity and significance of cannabis withdrawal syndrome. *Am J Psychiatry.* 2004 Nov;161(11):1967-77.

### **SYMPOSIUM 88—SOBERING FACTS: ALCOHOL DEPENDENCE AND TREATMENT INTERVENTIONS**

**Collaborative Session With the National  
Institute on Alcohol Abuse and  
Alcoholism**

#### EDUCATIONAL OBJECTIVES:

To recognize the societal cost and impact of alcohol dependence and abuse; understand the challenges in the diagnosis and treatment of alcohol dependence; understand the particular difficulties in the assessment and treatment of alcohol dependence with co-occurring medical and psychiatric disorders; and evaluate treatments, both medications and psychotherapy, in the management of alcohol dependence.

#### **No. 88A THE IMPACT OF ALCOHOL USE DISORDERS**

Richard J. Frances, M.D. *New York University Medical School, School of Medicine, Psychiatry, 510 E. 86th Street, 1D, New York, NY, 10028*

#### SUMMARY:

Alcohol use disorders (AUDs) remain a major public health problem in the United States, leading to the development of serious health problems and having far-reaching socioeconomic effects. AUDs affect nearly 18 million Americans, 8% of whom are classified as alcohol dependent. Unfortunately, only 15% of this population seeks treatment for this disease, and approximately one in four children up to 17 years of age is exposed at some time to familial alcohol abuse. The consequences of chronic alcohol use are serious, with increased risks of developing alcohol-related liver disease, cancer,

brain damage, immune-related disorders, or high-risk behaviors that carry a high degree of comorbidity with other substance-use disorders. Alcohol dependence is also both a risk factor for, and can be a result of, other psychiatric illnesses. While approximately 50% of the variance is genetic, cultural, familial, and other psychosocial factors play a role in the etiology and pathogenesis of the disease. Alcohol-related societal costs are estimated at \$185 billion a year, with nearly 70% of the costs attributed to reduced work productivity, alcohol-related illness, and premature death. Understanding and defining risk factors that contribute to the development of alcohol dependence become important in the successful treatment of this disease.

#### **No. 88B ALCOHOL DEPENDENCE: DIFFICULTIES IN DIAGNOSIS**

Kathleen T. Brady, M.D. *Medical University of South Carolina, Department of Psychiatry, 67 President Street, Charleston, SC, 29425*

#### SUMMARY:

Although alcohol dependence affects 8 million Americans, under-diagnosis is a critical issue, with only 2.4 million being diagnosed with an alcohol use disorder (AUD). Alcohol dependence differs from alcohol abuse in that the DSM-IV criteria for dependence requires at least 3 of the following symptoms during a 12-month period: tolerance, withdrawal, loss of control, preoccupation with drinking, impairment of activities, or continued drinking despite persistent problems. One reason for the under- or misdiagnosis of alcohol dependence is the presence of comorbid psychiatric disorders, such as anxiety and depression, which have overlapping symptomatology with acute alcohol intoxication and withdrawal. Current estimates report 86% of women and 78% of men with alcohol dependence have at least one co-occurring psychiatric disorder. Co-occurring medical disorders (diabetes, hypertension, cardiovascular disease, and liver disease) associated with alcohol dependence are often the primary reason an alcohol-dependent individual seeks treatment. Other issues contributing to under-diagnosis include denial, making it difficult for an individual to recognize the problematic consequences of alcohol use, and the associated societal stigma. With these difficulties in mind, accurate screening, diagnosis, and treatment in primary medical and psychiatric settings are essential to decreasing alcohol consumption and the personal and public health consequences of alcohol dependence.

#### **No. 88C INTEGRATING PHARMACOTHERAPY AND PSYCHOSOCIAL SUPPORT IN TREATING THE ALCOHOL-DEPENDENT PATIENT**

Roger D. Weiss, M.D. *McLean Hospital, Department of Psychiatry, 115 Mill Street, Belmont, MA, 02478-9106*

#### SUMMARY:

In treating alcohol-dependent patients with medications, the use of psychosocial support is a critical component of treatment. A number of different types of supports have been used along with pharmacotherapy, including individual psychotherapy, family support, and brief interventions similar to those that might be delivered in primary care settings. This presentation will discuss the interaction of psychosocial support with medications designed to treat alcohol dependence. This will include a review of how to introduce the subject of pharmacotherapy to alcohol-dependent patients. The most common forms of psychosocial treatment will be reviewed, along with evidence regarding the relative efficacy of combining different

psychosocial approaches with specific medications. Issues related to the attendance of Alcoholics Anonymous meetings by individuals taking medications for alcoholism will also be discussed. Finally, a discussion will be held about strategies to increase medication adherence in this population.

No. 88D

### **PHARMACOTHERAPY FOR THE TREATMENT OF ALCOHOL DEPENDENCE: REVIEW OF OUTCOME DATA**

Robert M. Swift, M.D. *Brown University Medical School, Department of Psychiatry and Human Behav, 345 Blackstone Blvd., Potter Bldg., Room 103, Providence, RI, 02906*

#### **SUMMARY:**

Alcohol dependence is a chronic disorder with high relapse rates, and prevention of relapse to drinking is a major challenge to treatment. Pharmacological treatment has emerged as a means to augment the effects of psychosocial therapies, enhancing abstinence rates and preventing relapse. Currently available drug therapies for alcohol dependence include aversion therapy with disulfiram, acamprostate, a glutamate/GABA modulator, or naltrexone, an opioid antagonist. Disulfiram alters the metabolism of alcohol so that acetaldehyde, a toxic intermediate, accumulates whenever alcohol is consumed. This provides a deterrent to consuming alcohol. Naltrexone and acamprostate target the neurochemical mechanisms underlying alcohol dependence. Naltrexone, compared to placebo, reduces the number of days of heavy drinking and decreases alcohol craving, but is less effective in maintaining abstinence. Numerous clinical trials have shown that patients treated with acamprostate, compared to placebo achieve greater rates of complete abstinence, longer times to first drink, and/or increased percent days abstinent. Compliance rates with acamprostate typically are greater than 85%, and not different from placebo. Among relapsed patients, there was a statistically significant increase in the number of patients receiving acamprostate who were able to regain a period of complete abstinence compared with placebo. Meta-analyses comparing medication to placebo across several clinical trials show improved outcomes with pharmacotherapy. Pharmacotherapies should always be administered in the context of a psychosocial therapy to facilitate compliance, enhance self-efficacy and address psychosocial issues. This presentation will review developments in the pharmacotherapy of alcohol dependence, with a particular focus on medications currently approved.

#### **REFERENCES:**

1. Grant BF, Dawson DA, Stinson FS, Chou SP, Dufour MC, Pickering RP. The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991-1992 and 2001-2002. *Drug Alcohol Dep.* 2004;74:223-234.
2. Grant BF, Dawson DA, Stinson FS, Chou SP, Dufour MC, Pickering R. The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991-1992 and 2001-2002. *Drug and Alcohol Dependence.* 2004;74:223-234.
3. Weiss RD: Adherence to pharmacotherapy in patients with alcohol and opioid dependence. *Addiction* 2004; 99:1382-1392.
4. Mann K. Pharmacotherapy of alcohol dependence: a review of the clinical data. *CNS Drugs.* 2004;18:485-504.

## **SYMPOSIUM 89—PHARMACOTHERAPY FOR SINGLE- AND DUAL-DIAGNOSED SUBSTANCE ABUSERS**

### **American Academy of Addiction Psychiatry**

#### **EDUCATIONAL OBJECTIVES:**

At the end of the symposium, the participant will have (a) increased expertise in the syndromes associated with combined mental illness and addiction, and (b) an understanding of the most recent approaches to their treatment.

No. 89A

### **COMORBIDITY WITH OPIOID DEPENDENCE**

Edward V. Nunes, M.D. *NYS Psychiatric Institute, Columbia University, Department of Psychiatry, 1051 Riverside Drive, Box 35, New York, NY, 10032*

#### **SUMMARY:**

The literature on the diagnosis and treatment of depression among patients with opiate dependence and related substance dependencies will be reviewed. Particular attention will be paid to longitudinal studies, and to clinical trials of antidepressant medications and of psychotherapy. This evidence will be used as a basis for suggesting clinical guidelines for the evaluation and treatment of mood disorders among patients with opiate dependence.

No. 89B

### **PHARMACOTHERAPY OF COMORBID SUBSTANCE ABUSE AND SCHIZOPHRENIA**

Steven L. Batki, M.D. *SUNY Upstate Medical University, VA Center for Integrated Healthcare, Dept. of Psychiatry, 750 E. Adams Street, Syracuse, NY, 13210*

#### **SUMMARY:**

Substance Use Disorders (SUDs) are common among individuals with schizophrenia and complicate treatment as well as impair outcomes. Pharmacotherapy of schizophrenia and co-occurring SUDs is complex because of the numerous questions that exist regarding the safety and effectiveness of antipsychotic medications in patients with SUD comorbidity, as well as questions regarding their possible abuse potential. Conversely, the use of various addiction pharmacotherapies in these patients has not been closely examined. The presentation will describe the epidemiology of substance use disorders in patients with schizophrenia, and discuss the use of typical and atypical medications to treat these comorbid conditions. The safety, abuse potential, and effectiveness of antipsychotic medications in treating SUDs in patients with schizophrenia will be reviewed. Finally, the use of addiction pharmacotherapies for managing nicotine, alcohol, stimulant, opioid, and cannabis use among these patients will also be assessed.

No. 89C

### **COMORBIDITY OF GENERAL PSYCHIATRIC DISORDERS AND COCAINE ABUSE**

Thomas R. Kosten, M.D. *Yale University School of Medicine/VA Connecticut Healthcare System, Department of Psychiatry 151D, 950 Campbell Ave. Bldg. 35, West Haven, CT, 06516*

**SUMMARY:**

Evidence based pharmacotherapies depend on both understanding pathophysiology and showing clinical efficacy using randomized, placebo controlled trials, which employ behavioral interventions that can enhance medication efficacy. The pathophysiology of cocaine dependence (CD) includes abnormalities in cerebral blood flow (CBF) and in neurotransmitter function. Neuroimaging effectively shows these abnormalities and their amelioration by pharmacotherapies, and individual differences in CD neuroimages can predict treatment response. Genetic polymorphisms can also predict response to specific cocaine pharmacotherapies. I will review these aspects of Pharmacotherapy in CD patients with cognitive impairment (vasodilators & anti-platelet agents), schizophrenia (atypical antipsychotics), bipolar (GABA enhancers - tiagabine, valproate; adrenergic blockers - propranolol, prazosin), depression (SSRI - sertraline vs fluoxetine; bupropion; disulfiram; modafinil), and anxiety-PTSD (sertraline, adrenergic blockers, GABA enhancers). A cocaine vaccine is also available for any type of CD patient. Reductions in CBF due to cocaine can be shown with neuroimaging and reversed with isradipine or amiloride treatment. Recent studies in CD show a remarkable synergism of contingency management with the antidepressants desipramine and bupropion. Treatment response to sertraline is effectively predicted by fMRI brain activation in the posterior cingulate to cocaine cues, while response to disulfiram is predicted by a genetic polymorphism encoding dopamine beta hydroxylase, which converts dopamine to norepinephrine.

No. 89D

**THE COMORBIDITY OF BIPOLAR SPECTRUM DISORDERS AND SUBSTANCE USE DISORDERS**

Stephen Ross *NYU School of Medicine, Department of Psychiatry, Division of Alcoholism and Drug Abuse, 550 First Avenue, NBV20N28, New York, NY, 10016*

**SUMMARY:**

Bipolar spectrum disorders are the most common Axis I diagnoses that co-occur with a substance use disorder (SUD), excluding nicotine dependence, occurring in upwards of 60% of patients with a bipolar diagnosis. This co-morbidity is much higher than would be expected by chance and occurs when examining the prevalence of SUDs in treatment-seeking patients with bipolar spectrum disorders and vice versa. Patients with bipolar spectrum disorders tend to use a variety of substances of abuse, especially cocaine and alcohol, and the use of these agents is often an attempt at self-medication; however, it can often be the case that the use of a particular substance will worsen underlying psychiatric symptoms.

Diagnosing bipolar disorder in the presence of active substance abuse can often be difficult. The goal is to differentiate between substance induced affective symptoms (i.e. mania due to stimulant intoxication or depression due to stimulant withdrawal) versus SUDs secondary to bipolar disorder (i.e. alcohol abuse in the setting of untreated mania that resolves with treatment of the mania) versus dually diagnosed patients. Obtaining a good history and tracking affective symptoms during periods of abstinence, either historically or through longitudinal observation, are especially important means to make diagnostic differentiations as well other factors such as a family history of either bipolar illness or addiction. Patients with bipolar disorder co-morbid with a SUD differ from patients from bipolar disorder alone in that those patients with co-morbidity tend to have an earlier onset of bipolar disorder, have more co-morbid Axis I disorders (especially panic disorder and PTSD), have a higher incidence of dysphoric/mixed/rapid cycling subtypes, and tend to have a more severe course of illness.

Treatment for the spectrum of patients that suffer from bipolar illness co-morbid with SUDs involves some combination of pharmacological and psychosocial techniques for both disorders,

optimally in a treatment setting that is integrative of both disorders rather than through the use of serial or parallel treatment models. Pharmacotherapy for bipolar disorder should target either the depressed or manic phases of the illness. Given that substance abuse in patients with bipolar disorder predicts a poor response to lithium and that mixed or rapid cycling subtypes of mania (more common in patients with bipolar disorder co-morbid with SUDs, as above) are more likely to respond to anticonvulsant medication than lithium, treatment with anti-convulsants, valproic acid or tegretol, is usually considered first line therapy in dually diagnosed bipolar/addictive spectrum patients. In addition to pharmacological stabilization to address affective symptoms and medications that may reduce craving (i.e. naltrexone/acamprosate for alcohol dependence or methadone/buprenorphine for opiate dependence), psychosocial modalities for both disorders are vital to prevent relapse.

**REFERENCES:**

1. Nunes EV, Sullivan MA, Levin FR. Treatment of depression in patients with opiate dependence. *Biol Psychiatry*. 2004 Nov 15;56(10):793-802.
2. Noordsy DL, Green AI. Pharmacotherapy for schizophrenia and co-occurring substance use disorders. *Curr Psychiatry Rep* 2003; 5:340-6.
3. Kosten TR: Advances in pharmacotherapy of stimulant dependence: From alcohol antagonists to Xenova vaccines. *Clin Neurosci Res. Proceedings from the 84th Annual ARNMD meeting, December 3-4, 2004, NYC, in press.*
4. Brady KT, Myrick H, Sonne S: Co-Occurring Addictive and Affective Disorders. In *Principles of Addiction Medicine, 3rd Edition*, edited by Graham AW et al. Chevy Chase, Maryland, American Society of Addiction Medicine Inc., 2003, pp1277-1286.

**SYMPOSIUM 90—SCIENCE AND REGULATION AFFECTING PRIVATE PRACTICE****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to state how science has led to regulations that affect private practice.

No. 90A

**EVIDENCE-BASED MEDICINE IN CHILD AND ADOLESCENT PSYCHIATRY: WHAT IS YOUR BEST GUESS?**

Jeffrey A. Naser, M.D. *Mainline Clinical Associates, 121 N. Wayne Ave., Suite 300, Wayne, PA, 19087*

**SUMMARY:**

While evidence-based medical practice provides the best standards in care, a significant limitation in the field of child and adolescent psychiatry is the current lack of research available to help guide treatment. While the available data is increasing all the time, many of the current algorithms for care are based on case reports and anecdotal information. Most of the medications used to treat psychiatric disorders in children are used "off label," and there is little to no research data available at all for more complex diagnostic issues such as Autistic-spectrum disorders and dual diagnoses, such as the triad of Attention Deficit Hyperactivity Disorder, Obsessive Compulsive Disorder and Tics. Over the past year, this has been complicated by concerns over potentially severe and life threatening side effects of psychotropic medications when used in children. The Food and Drug Administration has created guidelines for the use of some of these medications, and is reviewing the available data for others.

This presentation will provide an outline of some of the new guidelines, a brief review of some of the data used to create them, and examples of how these issues play out in the clinical practice of a child and adolescent psychiatrist.

**No. 90B  
EVIDENCE-BASED MEDICINE IN SOLO PRIVATE  
PRACTICE: WHAT IF THE PATIENT DOESN'T FIT?**

Ronald D. Abramson, *Wayland, MA, 01778*

**SUMMARY:**

The need to practice medicine according to the best standards of available evidence is undeniable. Current efforts to standardize evidence based practice have arisen from data showing unexplained disparities of care, and the need of third party payers to be sure of the quality of the product they are paying for. It is also undeniable that any patient who seeks medical psychiatric help has a right to the best quality of care available. But there is a hazard that "cookie cutter" guidelines and algorithms, if slavishly followed, may lead to poorer quality treatment.

This presentation will give clinical examples of patients who do not fit available guidelines and whose successful treatments require departing from the guidelines. Some examples of non-standard treatments will include using opiates to treat disorganizing anxiety and depression, amphetamines to treat agitation, benzodiazepines to treat anxiety in alcoholics, and non-standard psychotherapy.

The need to depart from established guidelines arises when evidence gained in the therapeutic relationship makes clear that the guidelines will not work in the individual situation and unusual solutions must be found. A good therapeutic relationship, willingness to learn from the patient, and clinical acumen are required for successful treatment in these situations.

**No. 90C  
MISSING RESOURCES: COMPREHENSIVE  
PSYCHIATRY FOR PEOPLE WITH MEDICAL  
ILLNESSES**

John C. Urbaitis, M.D. *Sinai Hospital of Baltimore, Department of Psychiatry, 2401 West Belvedere, Baltimore, MD, 21215-5216*

**SUMMARY:**

The author practices comprehensive psychiatry in an urban private-sector general hospital and sees many of his patients with active medical conditions wherever they require care: in his office, the ER, inpatient unit or general hospital. Many of his patients are referred by their primary physicians associated with the hospital.

It is his contention that more obstacles to good care and efficient care have surfaced in the past few years. These include gaps in insurance coverage, lack of prescription coverage - one can spend hours even with help of case managers, obtaining medications, lack of specialized psychiatry, medical and rehab services - for example, longer term inpatient psychiatry, dual diagnosis treatment with rapid access and support services, inpatient conjoint medical/psychiatric services.

The author will discuss working with state and national medical societies such as APA and AMA along with state officials, to get better coordination of services, working within the hospital to develop partial hospitalization programs; all are efforts to provide better care for our patients and a more productive work environment for ourselves.

**No. 90D  
COMPREHENSIVE PSYCHIATRY IN 2006:  
CONFIDENTIALITY AND ACCESS TO CARE IN  
PRIVATE PRACTICE AND IN MILITARY PRACTICE**

Brian Crowley, M.D., *Washington, DC, 20015-1845*

**SUMMARY:**

The author divides his clinical work in Washington between private office and general hospital on the one hand, and returning soldiers at Walter Reed on the other. From this experience he discusses issues of Regulation, as it affects:

1. Access to care; (managed care or self-pay, vs. the military system)
2. Confidentiality (D C Mental Health Information Act of 1978 v. military procedures); and Science, as it applies to treatment in both sectors. One surprising conclusion: confidential communications are generally safe in both systems; access is (debatably) less difficult for soldiers than civilians; and the latest scientific strides are well used in both sectors.

**No. 90E  
AFFECTING CARE AND TREATMENT OF  
CHILDREN AND ADULTS**

Harold I. Eist, M.D. *10436 Snow Point Drive, Bethesda, MD, 20814*

**SUMMARY:**

Research requirements for precision, replication, and specificity all too frequently result in studies that have little real life applicability because the exclusion criteria of the studies do not address the problems of treating patients that regularly walk into the offices of clinicians. In fact, research that leads to FDA approval of new agents provides only crude perspectives on the efficacy of these agents in treating the general patient suffering from multiple comorbidities because of the exclusion criteria designed to enhance research focus. Present day researchers are abandoning their views that they have the final word on what works and are increasingly willing to respectfully and constructively interact with practitioners to understand what treatments actually work "in vivo," and how to get them to work. This has led a well known researcher to recently give a paper entitled, "Don't Trust Research." The presenter will discuss the importance of the clinician/researcher relationship with reference to the recent SSRI crisis, off label utilization of medications and improving communication between the research and treatment communities.

**REFERENCES:**

1. Williams DDR, Garner J: The Case Against 'the Evidence': A Different Perspective on Evidence Based Medicine. *British J Psychiatry* 2002; 180: 8-12.
2. Polsky D, Doshi JA, Marcus S, et al: Long-Term Risk for Depressive Symptoms After a Medical Diagnosis. *Arch Intern Med* 2005; 165: 1260-1266.
3. Reference: Multidisciplinary Treatment of Persistent Symptoms after Gulf War Service. Engel, Roy, Kayanan, and Ursano. *Military Medicine*, Vol. 163, April 1998, pages 202-208.

**SYMPOSIUM 91—RECENT ADVANCES IN  
ETHNOPSYCHOPHARMACOLOGICAL,  
ETHNIC, AND CULTURAL ASPECTS OF  
MOOD AND ANXIETY DISORDERS**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the symposium, the participant should be able to appreciate the extent to which culture and ethnicity may affect the phenomenology and response to treatment in mood and

anxiety disorders; understand the principles and application of ethnopsychopharmacology and recognize cross-cultural issues in the psychopharmacological and psychotherapeutic treatment of mood and anxiety disorders.

**No. 91A  
ETHNOPSYCHOPHARMACOLOGY**

David C. Henderson, M.D. *Massachusetts General Hospital, Department of Psychiatry, Freed Trail Clinic 25 Staniford Street, Boston, MA, 02114*

**SUMMARY:**

Understanding basic psychopharmacology principles and the impact of race, sex, and culture on metabolism, response, adverse events, medication interactions and medication compliance. Ethnopsychopharmacology examines biological and non-biological differences across race, ethnicity, sex and culture and is critical for safe prescribing practices. A growing body of published evidence is documenting important inter- and intra-group differences in how patients from diverse racial and ethnic backgrounds experience health and illness, and is affected by pharmacologic treatment. Recommendations will be provided to improve compliance, reduce adverse events and medication interactions, and to improve clinical outcomes. Depression and anxiety are ones of the most common medical/psychiatric disorders and occur across all populations, though symptom clusters may vary greatly. Pharmacologic interventions are critical in the treatment of depression. An expanded understanding of the interactions between psychopharmacological treatment and gender, ethnic and cultural diversity informs conceptualizations of psychopharmacological treatments of various populations. This paper will review principles of ethnopsychopharmacology and highlight issues influenced by race, gender, and culture in the pharmacologic treatment of depressive disorders and anxiety disorders.

**No. 91B  
PSYCHIATRIC MANAGEMENT OF HISPANIC PATIENTS: CROSS-CULTURAL ISSUES AND ETHNOPSYCHOPHARMACOLOGY**

David Mischoulon, M.D. *Massachusetts General Hospital, Department of Psychiatry, ., Boston, MA, 02114*

**SUMMARY:**

Increasing numbers of psychiatrists nowadays work with Hispanic patients, either on a regular basis through their outpatient clinic, or by serving as consultants to general internists who are called upon to manage psychiatric disorders in patients seen in the primary care setting. This session will review the demographics of the Hispanic-American population; discuss the different challenges and obstacles faced by clinicians who work with Hispanics, including the language barrier, cultural and interpersonal factors, gender roles, and differing beliefs and attitudes about mental health; review difficulties in diagnosis, including the impact of culture-bound syndromes (such as "ataque de nervios", and "susto") on assessment; and review different approaches to treatment, including relevant principles of ethnopsychopharmacology, and the role of natural remedies and folk healing. The topics covered should allow the clinician to effectively diagnose and treat psychiatric disorders in Hispanic patients and communicate more effectively with these patients in the clinical setting.

**No. 91C  
IMPACT OF CULTURAL BELIEFS ON THE TREATMENT OF DEPRESSED CHINESE AMERICANS**

Albert Yeung, M.D. *Massachusetts General Hospital, Department of Psychiatry, 50 Staniford Street, Suite 401, Boston, MA, 02114*

**SUMMARY:**

In European and North American cultures, depression is a well-accepted psychiatric syndrome characterized by specific affective, cognitive behavioral, and somatic symptoms. In many non-European cultures, including Nigerians, Chinese, Canadian Eskimos, Japanese, and Southeast Asians, equivalent concepts of depressive disorders are not found (Marsella et al., 1985). Studies exploring illness beliefs of depressed among depressed Chinese Americans with a low degree of acculturation have shown that many of them were unaware of, or were unfamiliar with the concept of major depression. The discrepancy of illness beliefs between less acculturated Chinese Americans and their physicians has led to under-recognition and under-treatment of depression among Chinese Americans. Possible solutions to improve treatment of depressed Chinese Americans will be discussed.

**No. 91D  
CHALLENGES IN THE DIAGNOSIS AND TREATMENT OF MOOD AND ANXIETY DISORDERS IN THE ASIAN-INDIAN POPULATION: CROSS-CULTURAL FACTORS AND PSYCHOPHARMACOLOGICAL CONSIDERATIONS**

Rajesh M. Parikh, M.D. *Jaslok Hospital Research Center, Department of Psychiatry, Bombay, 400026, India, Shamsah B. Sonawalla, M.D.*

**SUMMARY:**

The Asian-Indian population is a growing ethnic group in the U.S. This diverse sub-group of individuals have their own set of cultural norms, family traditions and religious belief systems, which may influence manifestation of depression and affect treatment outcome. Mood and anxiety disorders are under-diagnosed and under-treated in this population, and mental illness is frequently viewed as an embarrassment or stigma. Young women often face unique pressures in the system, both from the family as well as from society. Family involvement is important in all stages of treatment of mental illness, including interactions with the treating physician and compliance with treatment. Herbal remedies and alternative treatments are widely used. Data on ethnopsychopharmacology, although limited, suggests differences in metabolism, dose requirements and adverse event profiles for antidepressant medications in this population. Understanding the complex cultural belief systems may allow clinicians to assess some of the cultural factors in treatment and potentially increase treatment acceptability and compliance, particularly with antidepressant medications. Suggested modifications for managing depression in the Asian-Indian population will be discussed.

**REFERENCES:**

1. Ruiz P, ed. *Ethnicity and Psychopharmacology*. Washington, DC: American Psychiatric Press, 2001.
2. Ruiz P. Assessing, diagnosing, and treating culturally diverse individuals: a Hispanic perspective. *Psychiatric Quarterly* 1995; 66: 329-341.
3. Kleinman A. *Patients and Healers in the Context of Culture: An Exploration of the Borderland Between Anthropology, Medicine, and Psychiatry*. University of California Press, Ltd. London, England, 1980.
4. 1. US Census Bureau: Profiles of general demographic characteristics: 2000 census of population and housing. May, 2001.

## SYMPOSIUM 92—ANXIETY AND EMOTIONAL DYSFUNCTION IN ENDOPHENOTYPE OF SCHIZOPHRENIA

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium should be able to: assess comorbid anxiety disorders in schizophrenic patients Recognize emotional dysfunction and include that as a target of the therapeutic project

### No. 92A SCHIZOPHRENIA AND OCD: THE ROLE OF SEROTONERGIC AND DOPAMINERGIC SYSTEMS

Joseph Zohar *Tel Aviv University, Department of Psychiatry, Tel Hashomer, 52621*

#### SUMMARY:

As many as 15% of chronic schizophrenic patients also suffer from obsessive compulsive disorder (OCD). This increased prevalence of OCD in schizophrenia compared with that in the general population (2%) has raised intriguing questions regarding the association between OCD and schizophrenia. Moreover, the presence of OCD in schizophrenia was found to predict a poor prognosis. Many schizophrenic patients can differentiate the ego-dystonic obsessive compulsive symptoms that they perceive as originating from within themselves from the ego-syntonic delusions that they perceive as introduced to them from outside.

For this subset of patients, treatment with a combination of antipsychotic and antiobsessive medication has a better outcome as compared to antipsychotic medication alone. The role of the second generation antipsychotics (SGA) in this specific cohort of patients needs to be studied more carefully. So far, there have been no studies which examine the effect of SGA in patients with a 'serotonergic component', namely patients with schizophrenia and obsessive compulsive disorder versus patients with schizophrenia alone. We will present data from a study in which the effects of SGA were compared in 'schizo-obsessive' patients and schizophrenic patients. Diagnostic issues and theoretical implications related to this study will be discussed.

### No. 92B ANXIETY COMORBIDITIES AND ROLE OF EMOTION IN ENDOPHENOTYPE OF SCHIZOPHRENIA

Stefano Pallanti *Inst. Neuroscienze, Firenze*

#### SUMMARY:

Schizophrenia is a complex disorder, characterized by different and independent symptomatological clusters (positive, negative, cognitive and affective). Functional deficits have been associated with positive and cognitive symptoms of Schizophrenia and have been also investigated in terms of corresponding neural circuits.

Anxiety Disorders have been recognized as highly comorbid in Schizophrenia even if their assessment has been often neglected until now. The relationship between different anxiety comorbid disorders and emotional dysfunction has been considerably less widely discussed in the literature on Schizophrenia.

Aim of the present symposium is to focus on these aspects: assessment of anxiety comorbidity (particularly SA and PD comorbidities) and emotion in schizophrenia. Furthermore will be discussed also results about relationship between Social Anxiety and J Panksepp questionnaire: "Multi dimensional Inventory: The affective neuroscience Personality scale"

### No. 92C INVESTIGATING THE COGNITIVE AND EMOTIONAL NEUROPSYCHOLOGY OF SCHIZOPHRENIA COMORBID WITH ANXIETY DISORDERS

Naomi A. Fineberg, M.A. *University of Hertfordshire, Postgraduate Medical School, Queen Elizabeth II Hospital, Howlands, Welwyn Garden City, AL7 4HQ, United Kingdom*, Sam R. Chamberlain, B.A., Barbara Sahakian, Ph.D., Trevor W. Robbins, Ph.D.

#### SUMMARY:

Neuropsychological studies of individuals with schizophrenia have consistently identified impairment using cognitive tests sensitive to frontal-subcortical function, such as tests of spatial working memory and attentional set-shifting ability. Such deficits appear to be present at an early stage of illness, are relatively enduring and may be associated with longer duration of untreated illness (Joyce et al. *Br J Psychiatry suppl.* 2002, 43. s38-44) and development of negative symptoms or tardive dyskinesia (Pantelis et al 2001). Candidate neural systems underlying these deficits include both dorsolateral and ventrolateral prefrontal-striatal-thalamic circuitry. It has been argued that persistent cognitive deficits are responsible for the failure of many individuals with schizophrenia to rehabilitate socially, despite remission of their psychotic symptoms.

The ability to process emotionally charged information is another key determinant of work functioning and independent living for individuals coping with schizophrenia. Problems interpreting emotions (facial emotion, voice emotion, and affect perception) have also been shown to be associated with impairment on tests of neuro-cognitive performance, suggesting that deficits in decoding affective information in schizophrenia could be attributed to impairment in more basic neurocognitive domains (Bozikas et al., *Int Neuropsychol Soc.* 2004 Jul;10(4):549-58).

Comorbidity between schizophrenia and anxiety disorders including obsessive compulsive disorder (Mukhopadhyay et al. *J. Psychopharmacology* 19 (5) suppl. Sept 2005. p A14) and social anxiety disorder is common and individuals with these comorbidities appear more cognitively and socially disabled (Pallanti et al *Am J Psychiatry* 2004, 161: 53-58), although research in this area is limited.

Objectives: In our paper we systematically review the neuropsychological studies that have investigated this field. Our aim is to identify those neuropsychological deficits ('executive' or 'emotional') that characterise cases with overlapping schizophrenia and anxiety. We will discuss how these deficits inform models of brain function in schizophrenia, contribute toward a better understanding of the role of anxiety in the expression of the illness and signal novel treatment targets to overcome barriers to rehabilitation for this chronically disabled group.

### No. 92D PSYCHOPHYSIOLOGICAL INVESTIGATION OF PATHOLOGICAL ANXIETY AND EMOTIONAL DYSFUNCTION IN PATIENTS WITH SCHIZOPHRENIA

Werner Strik, M.D. *University Hospital of Psychiatry, Bern, Switzerland, Bolligenstrasse 111, Bern 60, 3000, Switzerland*, Thomas Müller, M.D., Dominik Bach, M.D.

#### SUMMARY:

Emotional flattening is accepted as a key feature of chronic schizophrenia. However, there are many schizophrenic patients who show a pathological emotional excitability. There are indications that this may lead to pathological anxiety and cognitive distortions in form of delusional ideas of threat. Functional neuroimaging can contribute to study the reaction of controls and patients to emotional communi-



cation in the verbal and non verbal mode through content and prosody of speech and through facial expression. The presentation will give an overview over current methods and paradigms in functional neurophysiology to study time course and location of emotional processing, and preliminary results of studies on prosody and facial processing in schizophrenia.

#### REFERENCES:

1. Denys D, Zohar J, Westenberg H: The Role of Dopamine in Obsessive-Compulsive Disorder: Preclinical and Clinical Evidence. *J Clin Psychiatry*, 65 (Suppl 14): 11-17, 2004.
2. Journal Article: Pallanti S, Quercioli L, Hollander E. Social anxiety in outpatients with schizophrenia: a relevant cause of disability. *Am J Psychiatry*. 2004 Jan;161(1):53-8.
3. Pantelis C, Stuart GW, Nelson HE, Robbins TW, Barnes TR. Spatial working memory deficits in schizophrenia; relationship with tardive dyskinesia and negative symptoms. *Am J Psychiatry* 2001, 158, 1276-1285.
4. Strik W, Dierks T. How modern neurophysiology can help to understand schizophrenia. *Schweiz Arch Neurol Psychiatr* 2004;155:368-74.

### SYMPOSIUM 93—TEACHING PSYCHIATRY RESIDENTS ABOUT INFORMED CONSENT

#### EDUCATIONAL OBJECTIVES:

1. At the conclusion of this symposium, the participant should be familiar with the components of informed consent for psychotherapy and pharmacotherapy. 2. At the conclusion of this symposium, the participant should be familiar with the special challenges residents face in obtaining informed consent from their patients. 3. At the conclusion of this symposium, the participant should be able to identify three ways in which residency training can be improved with respect to teaching informed consent.

#### No. 93A INFORMED CONSENT IN PSYCHIATRY: AN OVERVIEW

Thomas G. Gutheil, M.D. *Massachusetts Mental Health Center, 6 Wellman Street, Brookline, MA, 02446-2831*

#### SUMMARY:

Informed consent to treatment, though drawing on earlier roots, evolved in US courts in the 1950s as a means of reaffirming patients' rights to make decisions for themselves. Valid consent requires disclosure of material information to a competent patient, who is free of coercion in reaching a decision. Information disclosure is governed, depending on jurisdiction, either by customary professional practice or by what a reasonable patient would find material to a decision. Competence is determined by whether the patient has acceptable abilities to understand, appreciate, and reason about the disclosed material, and to reach a choice. Although concern has been expressed regarding psychiatric patients' abilities to meet this standard of competence, studies suggest that many patients—even those with the most serious disorders—are capable of doing so. Among the practical issues most likely to arise in psychiatric practice are: disclosing relatively rare or delayed risks of pharmacologic treatment, framing disclosure of material information in psychotherapy, assessing patients' decisional capacities, titrating disclosure to patients' capacities to absorb information as their conditions change, and the use of advance directives and surrogate decision makers. Data suggest that, the legal and ethical rules notwithstanding, in practice many physicians of all specialties fail to obtain effective informed consents from their pa-

tients. These issues will be addressed to set the stage for subsequent presentations in this symposium.

#### No. 93B INITIATION OF PSYCHOTHERAPEUTIC AND PSYCHOPHARMACOLOGIC TREATMENT BY PSYCHIATRY RESIDENTS

Bret R. Rutherford, M.D. *New York State Psychiatric Institute, Department of Psychiatry, 1051 Riverside Drive, New York, NY, 10032*, Thomas G. Gutheil, M.D.

#### SUMMARY:

The need to obtain informed consent for psychiatric treatment has been increasingly well recognized, but to what extent clinicians undertake this discussion during the opening phase of treatment remains unclear. Until now there have been no data pertaining to whether clinicians in training obtain informed consent from their patients. In the present study three clinical vignettes were developed and used to survey psychiatry residents at seven New York City area training programs. The vignettes comprised a patient with Major Depression to be treated with medications and two psychotherapy patients, diagnosed with Borderline Personality Disorder and neurotic character traits but no Axis I diagnosis, respectively. Subjects were asked to answer questions following the vignettes according to how they would actually proceed in practice with such patients. Using an answer key established a priori with the input of experts in informed consent, subjects' responses were examined to determine whether an adequate informed consent discussion took place. It was predicted that residents would not follow the standard of care in obtaining informed consent from their patients and that they may obtain informed consent less often from psychotherapy patients compared to medication patients. 108 of 220 subjects returned the survey for a response rate of 49%. Only 1/108 subjects overall met the modest criteria established for what constituted an adequate discussion of informed consent. Comparing responses to the psychopharmacology vignette with those to the psychotherapy vignettes, subjects were relatively better at providing the depressed patient with information about his diagnosis, how medications could be expected to work, and what side effects of treatment could be expected. Respondents were poor across vignettes at providing information about confidentiality of treatment and the fact of their supervision by a senior clinician. On further examination of the data, subjects appeared to know what information should be disclosed to obtain informed consent but were deficient in initiating the discussion with the vignette patients. Overall, a striking need for education about informed consent in psychiatry residency appears to have been documented, with the suggestion that a change in the clinician's mindset during the opening phase of treatment may dramatically increase how often informed consent is obtained.

#### No. 93C INFORMED CONSENT FOR PSYCHOTHERAPY

Thomas G. Gutheil, M.D. *Massachusetts Mental Health Center, 6 Wellman Street, Brookline, MA, 02446-2831*

#### SUMMARY:

Informed consent for psychotherapy. The best way to view informed consent for psychotherapy is to contrast it with the same for surgery. In surgery the patient will be asleep for the relevant period; the benefits are relatively clear; many best practices have been identified; the risks are empirically derived from actual clinical experience and probabilities; with little variation the anatomy is standard; and the statistics involved are reasonably well known. None of these factors has a parallel in psychotherapy.

The patient is awake at all times; the benefits are identifiable but not always clear; there are more than 400 forms of named psychotherapy; the risks are complex and difficult to identify in an individual case; the "psychic anatomy" is anything but standard; and statistical data are extremely hard to come by. Within this inchoate context some information can and should be shared with patients and those factors will be the subject matter of this presentation.

**No. 93D**  
**COMPLICATIONS OF THE INFORMED CONSENT PROCESS IN PSYCHOTHERAPY**

Glen O. Gabbard, M.D. *Baylor College of Medicine, Department of Psychiatry, 6655 Travis, Houston, TX, 77030*

**SUMMARY:**

In this presentation some complications of the informed consent process in psychotherapy will be discussed. The role that transference plays from the beginning of psychotherapy will be illustrated with examples. In addition, informed consent may heighten pre-existing resistances, both conscious and unconscious, so that the patient finds it difficult to work within the frame of psychotherapy in an optimal manner. Many patients actively question whether psychotherapy is truly confidential, and the process of informed consent may function as a confirmation of their doubts. Countertransference may also influence how informed consent is offered to the patient as some therapists may prefer not to hear certain details of the patient's life. Videotaped vignettes will be used to illustrate this phenomenon. Strategies to deal with these complications will be offered.

**No. 93E**  
**INFORMED CONSENT IN PSYCHOPHARMACOLOGY**

Steven K. Hoge, M.D. *Law and Psychiatry Institute, 5 Dakota Drive Suite 306, Lake Success, NY, 11042*

**SUMMARY:**

Informed consent refers to (1) a legal doctrine that sets minimum standards for valid consent, and (2) an ethical principle that calls for psychiatrists to involve their patients in decision making regarding care to the greatest possible extent. In the context of residents providing psychopharmacological treatment, several issues arise with respect to the content and extent of disclosures to patients: residents' training status, their experience with prescribing and managing side effects and other treatment emergent issues, such as non-response, and alternative treatment options. Residents also need to learn how to manage the informed consent process, particularly with regard to how to introduce information to patients and how to frame risks to maximize understanding. The growth of information regarding familial and genetic risk is a new frontier for informed consent that residents must incorporate into their disclosures to patients.

**REFERENCES:**

1. Berg JW, Appelbaum PS, Lidz CW, Parker L. (2001) *Informed Consent: Legal Theory and Clinical Practice*, 2nd edition. Oxford University Press, New York, NY.
2. Berg J, Appelbaum P, Lidz C, Parker L: *Informed Consent: Legal Theory and Clinical Practice*. New York, Oxford University Press, 2001.
3. Beahrs JO, Gutheil TG: Informed consent for psychotherapy. *Am J Psychiatry* 158:4-10, 2001.
4. Gabbard GO: *Long-Term Psychodynamic Psychotherapy: a Basic Text*, Arlington, VA; APPI, 2004.
5. Petril J: The emerging debate over the shape of informed consent. *Behav Sci Law* 2003; 21:121-133.

**SYMPOSIUM 94—SUSTAINED RECOVERY AND HEALTHY FUNCTIONING: THE LONG AND SHORT OF IT**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to understand the evidence for and importance and feasibility of sustained recovery and the development of healthy functioning in depression and personality disorders.

**No. 94A**  
**EVIDENCE FOR RECOVERY IN THE PSYCHOTHERAPY OF PERSONALITY DISORDERS**

John C. Perry, M.D. *SMBD Jewish General Hosp & McGill University, Psychiatry, 4333 Cote Ste-Catherine Road, Montreal, PQ, H3T 1E4, Canada*, Martin Drapeau, Ph.D., Trent Semeniuk, M.D.

**SUMMARY:**

**Objective.** Previous meta-analyses of psychotherapy studies for personality disorders have focused on overall improvement, reporting moderate to large effects. However end-point mean scores on most measures suggest a high level of remaining symptoms and impairment. We examine studies inclusive through 2004, addressing the percentage of patients in each treatment arm who have attained recovery. For each measure, recovery is defined by a threshold; sustained recovery should additionally require a duration at or below the threshold.

**Methods.** We examine all the existing cohort, comparison and controlled treatment trials employing at least one systematic psychotherapy arm for personality disorders and employing standardized measures. Results are examined for the most commonly used measures, such as the SCL-90-R, BDI, HRSD, HRSA, GAF/HSRS, personality disorder pathology, and others.

**Results.** Recovery on most measures occurred in less than one-quarter to one-eighth of subjects completing the treatment, with a possible exception for the BDI. Figures may be less by intent-to-treat analyses. Most studies ignore the issue of duration of recovery.

**Conclusion.** Recovery is uncommon on most measures and the duration of recovery is not adequately addressed. Longer treatments aiming at producing recovery, with multiple follow-ups to verify the durability of recovery are required.

**No. 94B**  
**CHANGE IN PSYCHOLOGICAL RISK AND RECOVERY IN RECURRENT DEPRESSION**

Elisabeth Banon *SMBD Jewish General Hosp & McGill U, Psychiatry, 3755 Cote Ste-Catherine, A-532, Montreal, PQ, H3T 1E2, Canada*, John C. Perry, M.D., Trent Semeniuk, M.D., Ruta Westreich, M.Psy., Philip R. Beck, M.D., Serge Lecours, Ph.D.

**SUMMARY:**

**Objective.** Major Depressive Disorder (MDD) is commonly recurrent. Treatments not addressing underlying psychological risk factors may produce remission without providing protection against relapse or recurrence. We examined whether change in theoretically derived risk factors following short-term cognitive-behavioral (CBT) or dynamic (DYN) psychotherapy was correlated with staying well at one-year follow-up.

**Methods.** Twelve subjects with DSM IV acute, recurrent MDD were randomized to either 20-session CBT or DYN, each with antidepressive medications. Maladaptive depressive beliefs and experiences were assessed using the Dysfunctional Attitudes Scale (DAS), Vulnerability Schema Scale (VSS), and the Depressive Experiences Questionnaire (DEQ). The Defense Style Questionnaire (DSQ), and

Defense Mechanism Rating Scales (DMRS) assessed depressive defense mechanisms. The scales and ratings were completed at baseline, termination, and one year follow-up. Remission was assessed with the Beck (BDI), Hamilton HRSD-17, and Longitudinal Interval Follow-up Examination (LIFE).

Results. Most patients experienced one or more remissions from MDD at termination with no apparent difference between CBT and DYN, however full recovery was less frequent. Most patients were not recovered on most measures of psychological risk.

Conclusion. Measures of underlying psychological vulnerability to depression are convergent with the continuation of risk for continued depressive symptoms or episodes following short-term treatment.

#### No. 94C

### DYNAMIC RECOVERY IN PATIENTS WITH TREATMENT-REFRACTORY DISORDERS

Christopher Fowler *The Austen Riggs Center, 25 Main St, Stockbridge, MA, 01262-0962*, John C. Perry, M.D., Stefanie Spanburg, M.S.W.

#### SUMMARY:

Objective. Psychodynamic conflicts may best be understood as underlying patterns of attitudes, beliefs, behaviors, and ways of handling emotions that predispose an individual to experience distress such as depression, anxiety or impulsive behavior when specific stressors occur. This presentation will: 1.) examine the changes in pathological and adaptive expression of psychodynamic conflicts over time; 2.) estimate the time course for adults with treatment-refractory disorders to reach dynamic health; and 3.) examine how improvement in conflict adaptation is associated with symptom distress, depression, social role functioning, life satisfaction, and defensive functioning.

Method. Approximately 60 subjects with treatment-refractory conditions had an initial and up to 4 follow-up interviews blindly assessed for 14 specific psychodynamic conflicts utilizing the Psychodynamic Conflict Rating Scales (PCRS: Perry, 1990).

Results. Highly significant decreases in pathological expression of conflicts were observed, while healthier adaptation to conflicts emerged at a slightly faster rate. On average, 5 to 7 years were required to develop more healthy adaptations to conflicts. Dynamic recovery, attained by less than one-quarter in that time frame, was associated with recovery on other measures, including GAF, depression, life satisfaction, and social functioning.

Conclusion. Recovery from psychodynamic conflicts is related to recovery of other descriptive and functional measures.

#### No. 94D

### EXAMINING THE SEQUENCE OF RECOVERY IN LONG-TERM DYNAMIC PSYCHOTHERAPY

Michael P. Bond *SMBD Jewish General Hosp & McGill U, Psychiatry, 4333 Cote Ste-Catherine Rd, Montreal, PQ, H3T 1E4, Canada*, John C. Perry, M.D.

#### SUMMARY:

Objective. Most patients entering psychotherapy have comorbid Axis I and or II disorders so multiple measures are appropriate and heterogeneity of outcomes expected. This study examines the rate of improvement and sequence of recovery across standard psychiatric measures in an outpatient psychotherapy sample.

Methods. Fifty-three adults with depressive, anxiety and/or personality disorders entered long-term dynamic psychotherapy. Follow-along assessments were done at six month intervals using standardized measures and the LIFE evaluation method. Follow-up continued

after treatment termination. Data were analyzed using random intercept random slope linear models using all observations.

Results. The sample had a median duration of 110 psychotherapy sessions taking a median of three years. Changes in time ill with Axis I disorders, SCL-90R, HRSD-21, HRSA, GAF, social role functioning, defense styles, and observer-rated defense mechanisms are compared. Time to recovery was then compared demonstrating which measures recovered early and which late. However, full recovery was relatively uncommon in the time frame of the study.

Conclusion. Significant improvement occurred in most measures, but there was great variation in time to recovery, suggesting that the choice of measures may influence our view of the effectiveness of psychotherapy.

#### No. 94E

### A REVIEW OF TREATMENT EVIDENCE ON SUSTAINED RECOVERY AND HEALTHY FUNCTIONING

Daniel Frank, M.D. *SMBD Jewish General Hosp & McGill U, Psychiatry, 4333 Cote Ste-Catherine Rd, Montreal, PQ, H3T 1E4, Canada*, John C. Perry, M.D., Brian M. Robertson, M.D., Paul Crits-Christoph, Ph.D.

#### SUMMARY:

Objective. Most medication and psychotherapy studies for depressive and personality disorders are short-term, while longer term studies are divided between maintenance and continued treatment designs. There is a need to understand the relationship between treatment duration and intensity and long-term outcome.

Methods. The presentation summarizes both literature reviews and some individual studies on the state of research on psychotherapy, with particular emphasis on psychodynamic psychotherapy, psychoanalysis and cognitive-behavioral therapy, focusing on depression and personality disorders.

Results. Research studies consistently show that most patients with long-standing psychiatric disorders show some improvement after short-term treatments, but are not recovered. Furthermore many disorders are characterized by relapse or recurrence over the long-term, not sustained improvement and the development of healthy life functioning. Some studies point to better effects for greater intensity and duration of treatment.

Conclusion. There is great need for research on which specific psychotherapies produce recovery and healthy functioning, for which patients, over how much time in treatment.

#### REFERENCES:

1. Perry JC, Banon E, Ianni F: The effectiveness of psychotherapy for personality disorders. *Am J Psychiatry* 1999; 156:1312-1321.
2. Casacalenda N, Perry JC, Looper K: Remission in major depressive disorder: A comparison of pharmacotherapy, psychotherapy and control conditions. *Am J Psychiatry* 2002; 159:1354-1360.
3. Fowler JC, Perry JC: Clinical techniques of the dynamic interview. *Psychiatry: Interpersonal and Biological Processes* (In press).
4. Bond M, Perry JC: Long-term changes in defense styles with psychodynamic psychotherapy for depressive, anxiety and personality disorders. *Am J Psychiatry* 2004; 161:1665-1671.
5. Bovasso GB, Eaton WW, Armenian HK: The long-term outcomes of mental health treatment in a population-based study. *J of Consulting & Clinical Psychology* 1999; 67:529-538.

## **SYMPOSIUM 95—MENTAL HEALTH DISPARITIES: CONCEPTS, ASSESSMENT, EVIDENCE-BASED PRACTICE, AND ADVOCACY**

### **APA Council on Minority Mental Health and Health Disparities**

#### **EDUCATIONAL OBJECTIVES:**

1) To understand the concepts and assessment methods concerning mental health disparities 2) To understand evidence-based practices and advocacy efforts associated with reducing mental health disparities

#### **No. 95A**

### **ESTIMATING MENTAL HEALTH DISPARITIES FOR LATINOS AND ASIANS USING THE NATIONAL LATINO AND ASIAN AMERICAN STUDY**

Margarita Alegria, Ph.D. *Ctr for Multicultural Mental Health Res, Psychiatry, Cambridge Health Alliance, 120 Beacon St., 4th Floor, Somerville, MA, 02143*

#### **SUMMARY:**

By 2050, more than a quarter of the clients seeking any mental health care will be ethnic minorities, many of them Latino and Asian American immigrants with limited English proficiency moving to urban areas of the U.S. If the pattern of unequal treatment persists (see *Unequal Treatment Report* by the Institute of Medicines, 2001), ethnic minority populations will continue to experience higher risk of being misdiagnosed, of not receiving evidence based treatments and lack of proper medication when first diagnosed, as compared to their white counterparts. In this paper we briefly discuss a framework of the mechanisms linked to mental health service disparities for Latinos and Asian Americans and test the hypothesized mechanisms using the National Latino and Asian American Study (NLAAS).

The NLAAS is a national psychiatric epidemiologic study to measure psychiatric disorders and mental health service usage in a nationally representative household sample of Asians and Latinos. It is designed to interview respondents in five languages (Tagalog, Vietnamese, Chinese, Spanish or English) to document the prevalence of service disparities of Latino and Asian-American populations. It includes mental health measures for lifetime and 12-month psychiatric disorders using WMH-CIDI as well as measure of impairment. The sample includes 4864 respondents ages 18+. Descriptive statistics and models are weighted using nationally representative survey weights. Service use is modeled using a Generalized Linear Model (GLM) with a log link for quantity and a probit model for any utilization. We adjust for group differences in health status by transforming the entire distribution of health status for minority populations to approximate the white distribution. Our data evidence dramatic service disparities for Latinos, particularly related to problem recognition for specialty sector care. For Asians, the service disparities are observed for some sectors of care but not others. Both Asian American and Latino differences in mental health service rates as compared to non-Latino whites appear to underestimate the actual level of need partly due to the unique ways cultural groups respond to diagnostic instruments. We discuss how regional and health policy factors seem to play a role in service disparities for these populations.

#### **No. 95B**

### **STRATEGIES FOR ASSESSING MENTAL HEALTH DISPARITIES USING HEALTH CARE FOR COMMUNITIES**

Thomas McGuire, Ph.D. *Harvard Medical School, Department of Health Care Policy, 180 Longwood, Department of Health Care Policy, Boston, MA, 02115*

#### **SUMMARY:**

In a recent report, the Institute of Medicine (IOM) defines a health service disparity between population groups to be the difference in treatment or access not justified by the differences in health status or preferences of the groups. This paper proposes an implementation of this definition, and applies it to disparities in outpatient mental health care.

Health Care for Communities (HCC) re-interviewed 9,585 respondents from the Community Tracking Study in 1997-98, oversampling individuals with psychological distress, alcohol abuse, drug abuse, or mental health treatment. The HCC is designed to make national estimates of service use. Expenditures are modeled using a Generalized Linear Model (GLM) with a log link for quantity and a probit model for any utilization. We adjust for group differences in health status by transforming the entire distribution of health status for minority populations to approximate the white distribution. We compare disparities according to the IOM definition to other methods commonly used to assess health services disparities.

Our method based on the IOM definition finds significant service disparities between Whites and both Blacks and Latinos. Estimated disparities from this method exceed those for competing approaches, due to the inclusion of effects of mediating factors (such as income) in the IOM approach.

A rigorous definition of disparities is needed to monitor progress against disparities and to compare their magnitude across studies. With such a definition, disparities can be estimated by adjusting for group differences in models for expenditures and access to mental health services.

#### **No. 95C**

### **ADDRESSING MENTAL HEALTH DISPARITIES IN EVIDENCE-BASED MENTAL HEALTH PRACTICES**

Steve Leff *Human Services Research Institute, 2269 Massachusetts Ave, Cambridge, MA, 02140*

#### **SUMMARY:**

We are increasingly moving to systems of mental health care characterized by the delivery of evidence-based practices (EBPs). Historically, there have been disparities in the mental health care racial and ethnic minorities have received. We will discuss three issues related to EBPs and disparities.

1) We do not know the effectiveness of most EBPs for diverse groups. Most scientific studies of EBPs have been conducted on mixed populations with too few minority persons for subgroup analyses. Additionally, apriori hypotheses and planned subgroup analyses are rare. For this issue, we discuss how intervention research should be conducted to address these problems.

2) As EBPs are implemented, there is the possibility that they will be allocated to diverse populations in ways that continue historical disparities. For this issue we discuss options for tracking the provision of EBPs to avoid repeating the errors of the past.

3) We do not know whether EBPs need to be adapted to meet the needs of diverse groups. For this issue we discuss: (1) How might it be necessary to adapt EBPs to meet the needs of diverse groups and (2) How should these adaptations be scientifically studied.

No. 95D

**REDUCING MENTAL HEALTH DISPARITIES FOR RACIAL AND ETHNIC MINORITIES: THE APA PLAN OF ACTION**Francis G. Lu, M.D. *San Francisco General Hospital, Department of Psychiatry, 1001 Potrero Avenue, San Francisco, CA, 94110***SUMMARY:**

This presentation reviews the four parts of the APA "Reducing Mental Health Disparities for Racial and Ethnic Minorities: A Plan of Action" approved by the Board of Trustees in December 2004. It was prepared by the APA Steering Committee to Reduce Disparities in Access to Psychiatric Care co-chaired by Altha Stewart, MD, and R.Dale Walker, MD. It provides an action plan for how the APA can work toward reducing mental health disparities for racial and ethnic minorities that were documented by the landmark report "Mental Health: Culture, Race and Ethnicity" by the Office of the Surgeon General (2001). The four parts of the Action Plan include the following: 1) Expand the science base, 2) Support education, training and career development, 3) Enhance access and reduce barriers, and 4) Promote mental health through collaboration and advocacy. The presentation will conclude with the progress that has been made in implementing this Action Plan.

**REFERENCES:**

1. Alegria, M., D. Takeuchi, et al.: Considering Context, Place, and Culture: The National Latino and Asian American study: *Int J Methods Psychiatr Res* 2004; 13(4): 208-220.
2. Balsa, A., T. G. McGuire and L. S. Meredith: Testing for Statistical Discrimination in Health Care, *Health Services Research* 2005; 40(1): 227-252.
3. None.
4. U.S. Department of Health and Human Services: *Mental Health: Culture, Race and Ethnicity*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.

**SYMPOSIUM 96—FEARFUL SLEEP AROUSALS****EDUCATIONAL OBJECTIVES:**

To recognize, diagnose, and treat recurrent nightmares, night terrors, nocturnal/sleep panic attacks, and sleep paralysis disorder(s)."

No. 96A

**DOES MOVEMENT SUPPRESSION INDEX CENTRAL FEAR SYSTEM INVOLVEMENT IN PTSD NIGHTMARES?**Steve H. Woodward, Ph.D. *National Center for PTSD, Clinical Laboratory and Education Division, Sleep Laboratory, 795 Willow Rd., 334 PTSD, Menlo Park, CA, 94025***SUMMARY:**

Field observations of free-living chimpanzees, our closest biological relatives, suggest that fear of predation plays a dominant role in determining many components of their sleep behavior. Archeological evidence suggests that our hominid ancestors were predated, shared range with nocturnal predators, and possessed no passive defenses against nocturnal predation until the development of rigid structures approximately 300,000 years ago. Nearly all of the central neural structures known to play a role in the regulation of sleep receive projections from the central nucleus of the amygdala, the executive center of the "central fear system". Paradoxically, objective modifications of sleep in the anxiety disorders, and in posttraumatic stress

disorder, in particular, are not patently evident in the sleep laboratory, notwithstanding the severe subjective sleep complaints endorsed by these patients. Data will be presented suggesting, counter-intuitively, that gross body movement during sleep may be systematically reduced in PTSD, particularly in association with trauma-related nightmares. Further, it will be argued that such data are wholly compatible with influence of the central fear system upon the sleep system. This argument rests upon data suggesting that movement suppression or "freezing" is the preferred behavioral output of the central fear system, and raises the possibility that movement suppression is relatively compatible with sleep, whereas the "fight/flight" response is not. This framework must ultimately accommodate the fact that sustained vigilance is necessary for survival in a high-threat environment, directly competitive with sleep, yet the first neurocognitive casualty of extended sleep restriction.

No. 96B

**SLEEP TERRORS AND SLEEPWALKING IN CHILDREN AND ADULTS**Rosalind D. Cartwright, Ph.D. *Rush University Medical Center, Behavioral Sciences, 1653 West Congress Pkwy, Chicago, IL, 60612***SUMMARY:**

Sleepwalking and sleep terrors are two of a group of sleep disorders collectively called the Parasomnias. These two are specific in occurring as disorders of partial arousal from NonREM sleep to REM sleep in the first three hours of the major sleep period. Although relatively common in young children with an estimated rate of 15%, they typically reduce in frequency during late adolescence as the proportion of deep NonREM sleep is reduced, and the transition to REM sleep is less abrupt. In children there is an equal gender distribution. However males are four times as likely to continue having episodes into adulthood as are females especially males are more likely to have behaviors involving sex or aggressive behaviors. One survey study puts the rate of those self-reporting current episodes of sleep-related violence at 2.1%. There is usually a family history of these disorders with twin studies suggesting a non-dominant inheritance with DQB1 05 and 04 implicated. Sleep studies scored for traditional stages do not show distinctive patterns except for many abrupt arousals from delta sleep. However scoring for delta power density has suggested less power in the delta range early in the night's sleep with no reduction in power across the night. Controls show high delta power early with a progressive reduction. Monplaisier has developed a protocol to elicit episodes in the sleep laboratory by sleep depriving subjects for 24 hrs. in advance. This results in more frequent and more severe episodes being caught on video tape.

No. 96C

**NOCTURNAL PANIC ATTACK: AN UNDERRECOGNIZED FEARFUL AROUSAL**Ravi K. Singareddy, M.D. *Penn State University/PSHNRI, Psychiatry, 500 University Dr., PO Box 850, Department of Psychiatry-H073, Hershey, PA, 17033***SUMMARY:**

Approximately 65% of panic disorder (PD) patients have panic attacks in their sleep [nocturnal panic attacks (NPA's)] and 30%-45% have recurrent NPA's. PD patients with NPA's report more sleep disturbances and higher co-morbid depression. However these fearful arousals are under recognized and the association between co-morbid depression and other sleep disturbances in PD patients with NPA's is not known. We examined the subjective sleep and lifetime episode of depression in a large sample of PD patients with versus without NPA's using The National Institute of Mental Health

Panic Disorder Questionnaire (NIMH-PQ). NIMH-PQ was given to 3,146 individuals who self reported panic attacks. 1,248(39.7%) NIMH-PQ were returned and 475(38.1%) were excluded because of incomplete data. The final sample of 773(61.9%) individuals who met DSM-III-R/IV PD criteria was divided into two groups based on their answer to "Have you ever awakened with a panic attack?" 471(60.9%) PD patients reported at least one lifetime episode of NPA (PD+) and 302(39.1%) patients had no NPAs (PD-). The two groups did not differ in age, age at first PA, marital status, employment status, or in the frequency of PA's during past 1 and 3 weeks. The PD+ group had higher proportion of females ( $p=.039$ ). Significantly more PD+ patients reported lifetime episode of depression ( $p=.0001$ ), that anxiety impairs their sleep ( $p=.0001$ ) and that they sleep fewer

hours/night compared to PD- patients ( $p=.0001$ ). Among the PD patients with lifetime episode of depression, more patients with NPA's had insomnia and slept less number of hours. Possible implications of co-morbid depression on sleep in PD patients with NPA's will be discussed.

#### No. 96D SLEEP PARALYSIS: OVERLOOKED FEARFUL AROUSAL

Thomas W. Uhde MD *Penn State University/PSNRI, Psychiatry, Hershey, PA, 17033-0850*, Orlena Merrit-Davis, M.D., Yury Yaroslavsky, M.D., Deborah Glitz, M.D., Ravi K. Singareddy, M.D., Bernadette M. Cortese, M.D.

#### SUMMARY:

Up to sixty-five percent of patients with DSM-III/IV panic disorder report a lifetime prevalence of nocturnal sleep panic attacks. Identical to daytime, wake panic attacks, sleep-nocturnal panic attacks are associated with conditioned fear responses, which often lead to fear and avoidance behaviors. In the case of patients with sleep-nocturnal, many patients develop fear of the sleep environment and sleep, which leads to chronic-intermittent sleep deprivation and an increase in the frequency and severity of both daytime-wake and nocturnal-sleep panic attacks. Over the past 5 years, our laboratory has investigated the relationship between nocturnal-sleep panic attacks and other types of fearful sleep arousals. Of particular interest, is the relationship between nocturnal-sleep panic attacks and sleep paralysis. In this paper, we compare and contrast nocturnal-sleep panic attacks and sleep paralysis in terms of phenomenology and clinical course of illness. Of particular relevance are recent findings from our laboratory that demonstrate the disabling nature of recurrent sleep paralysis and the failure of mental health professionals to recognize and appropriately manage this under-recognized disorder. This paper will provide an update on the phenomenology, longitudinal course, biology and treatment of sleep paralysis.

#### REFERENCES:

1. Woodward, S.H., Leskin, G.A., Sheikh, J.I. 2002. Sleep movement time: Associations with PTSD, nightmares, and comorbid panic. *Sleep*, 25, 681-688.
2. Cartwright R: Sleepwalking violence: A sleep disorder, a legal dilemma, and a psychological challenge. *Am J Psychiatry* 2004; 161: 1149-1158.
3. Uhde TW. The Anxiety Disorders. In: Principles and Practice of Sleep Medicine. M. H. Kryger, T. Roth, W.C. Dement (Eds.), Philadelphia. W. B. Saunders Co., 2000; pp 1123-1139.
4. Cheyne JA: Sleep paralysis episode frequency and number, types and structure of associated hallucinations. *J Sleep Res* 2005, 319-324.

### SYMPOSIUM 97—TRANSLATING THE NEUROBIOLOGY OF ALCOHOLISM INTO CLINICAL TREATMENTS Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium the participant should be familiar with:

- evolving scientific understanding of the neural substrates underlying alcohol seeking behavior and relapse,
- treatments evolving from this understanding, including recent pharmacogenomic insights
- strategies using experimental human paradigms, including functional brain imaging, to develop surrogate short term variables potentially indicative of treatment responses.

#### No. 97A LOST IN TRANSLATION: PRECLINICAL STUDIES OF GENETIC SUSCEPTIBILITY AND NEUROADAPTATIONS POINT TO A GROWING LIST OF NOVEL CANDIDATE TARGETS FOR TREATMENT OF ALCOHOLISM

Markus Heilig, M.D. *NIAAA, Lab of Clinical and Translational Studie, 10 Center Dr, 1SE-5334, Bethesda, MD, 20892*

#### SUMMARY:

Recent years have seen the arrival of the first two neuropharmacologically based treatments for alcohol dependence. Several other are in development. Animal models have been key to this development. Preclinical modelling focuses on two main domains. One is identification of genetic susceptibility factors, which can be isolated through selective breeding. The second is the neuroadaptive processes which underlie the transition from a non-dependent to a dependent state. Application of traditional behavioral pharmacology as well as functional genomics to these models is rapidly generating a list of novel candidate targets that await clinical validation.

A history of dependence is key to alcohol seeking behavior. A prolonged exposure of the brain to repeated cycles of intoxication and withdrawal induces a marked and long-lasting increase in voluntary ethanol intake. This is paralleled by long term changes in gene expression that affect several neural systems of interest. Dependence-induced drinking is antagonized by acamprosate, a compound clinically effective in human alcoholism. Expression analysis has identified several interesting transcripts that are long term up-regulated in this model. These include members of pathways previously implicated in alcohol dependence (glutamatergic, endocannabinoid and monoaminergic neurotransmission), as well as pathways not previously known to be involved in this disorder (e.g. members of the mitogen-activated protein kinase pathway, beta-arrestin 2).

Genetic selection for high alcohol preference has resulted in the generation of several alcohol preferring rat lines. The Finnish Alko Alcohol preferring (AA) rat line is among the best established of these. Based on the initial expression screen in dependence induced drinking, we carried out a focused analysis of endocannabinoid related gene expression and function in the AA model. A selective decrease in the expression and activity of the main endocannabinoid degrading enzyme FAAH in the prefrontal cortex in this line is accompanied by accumulation of endocannabinoids in brain tissue. Blockade of this up-regulated endocannabinoid drive using the experimental cannabinoid CB1 receptor antagonist rimonabant blocks the high ethanol self-administration in the AA rats, while blockade of

FAAH in non-selected rats increases their ethanol preference. These findings validate the functional role of endocannabinoid signalling in motivation to consume ethanol.

These types of preclinical discovery strategies are now generating a growing list of candidates that await evaluation in humans. Obtaining initial human validation data for them is a major challenge, that will require the development of novel human experimental paradigms.

#### No. 97B

### MEDICATIONS FOR TREATING ALCOHOLISM: FROM ANIMAL MODELS TO CLINICAL USEFULNESS

Charles P. O'Brien, M.D. *University of Pennsylvania, School of Medicine, Department of Psychiatry, 3900 Chestnut Street, Philadelphia, PA, 19104-6178*

#### SUMMARY:

The treatment of alcoholism in the United States has long been dominated by non-medical therapists who focused on 12 step approaches to the exclusion of any type of psychoactive medication. Beginning in the 1970s, data from animal models demonstrated that alcohol activates the endogenous opioid system. In the 1980s clinical trials began to accumulate evidence showing that blocking opiate receptors reduced the rewarding properties of alcohol and improved treatment response in patients who were also receiving psychosocial rehabilitation. After FDA approval in 1994, the great majority of randomized clinical trials have shown overall clinical efficacy for naltrexone. Recent research has begun to accumulate data on patients who are naltrexone responders. This effort has benefited from studies of the human genome and specifically, the genes involved in the regulation of the endogenous opioid system. Naltrexone is a specific opiate receptor antagonist and an alcoholic cannot benefit from treatment unless the condition is associated with an activated endogenous opioid system. One of the alleles of the  $\mu$  opioid receptor, A118G, has been shown to code for a  $\mu$  receptor variant that has elevated affinity for B-endorphin in vitro and to be associated with an increased risk for the development of alcoholism and opiate addiction. A retrospective examination of genotypes in naltrexone clinical trials showed that patients with A118G did very poorly when randomized to placebo, but show an excellent response in terms of reduced relapse to clinically significant drinking when randomized to naltrexone. A subcategory of alcoholism has been proposed in which the patient reports a family history of alcoholism, euphoria from alcohol, high alcohol craving and may have an endogenous opioid system genetically predisposed to be reactive to alcohol.

Other alcoholics respond better to acamprosate, another medication recently approved for the treatment of alcoholism. The mechanism of action of acamprosate is poorly understood, but it appears to reduce hyperexcitability by reducing glutamate release resulting in calming and reduced alcohol craving. Acamprosate was first found to be effective in reducing alcohol intake in animal models that proved predictive of clinical effects in numerous randomized trials in Europe. Since acamprosate and naltrexone have completely different mechanisms of action, there is some evidence that there may be additive effects if they are given in combination.

Other medications in recent clinical trials have also been found to be effective in reducing alcohol intake with completely different mechanisms of action. GABA-ergic agents have been found in animal models to reduce drug self-administration. Clinical trials with topiramate, marketed for seizure disorders, have produced evidence of efficacy for alcoholism and cocaine addiction. Ondansetron, a 5HT<sub>3</sub> antagonist marketed for its anti-nausea properties, was found effective in early onset alcoholism.

In summary, guided by animal models, researchers have identified several pharmacological classes of medications that improve outcome in alcoholism when combined with psychosocial interventions.

The clinician now has a range of treatments and treatment combinations that can be employed in the management of this chronic disease.

#### No. 97C

### ANIMAL MODELS FOR NOVEL MEDICATIONS FOR ALCOHOLISM: VIEW FROM THE DARK SIDE

George F. Koob *Scripps Research Institute, Department of Neuropharmacology, 10550 North Torrey Pines Road, The Scripps Research Institute, CVN-7, La Jolla, CA, 92037*

#### SUMMARY:

Animal models for various stages of the alcohol abuse cycle have been developed and are providing a rational basis for medication development for treatment of alcoholism. Animal models of excessive drinking include binge models and stress/dependence interaction models, including abstinence-induced drinking, drinking following abstinence and withdrawal, and drinking during protracted abstinence in animals with a history of dependence. Medications that are currently in clinical use are effective at different stages of the addiction cycle and thus using different animal models. Naltrexone appears more effective in treating excessive drinking in binge models, whereas acamprosate is particularly effective in deprivation and withdrawal-induced drinking. A novel approach to medications development involves neuropharmacological restoration of homeostatic mechanisms of emotion and stress that represents a strong motivational component of excessive drinking (dark side). Much preclinical evidence suggests that corticotropin-releasing factor is activated during acute withdrawal and remains dysregulated during protracted abstinence. Other neurotransmitter systems that normally buffer the brain stress systems such as  $\gamma$ -aminobutyric acid (GABA) and neuropeptide Y (NPY) also may be dysregulated during withdrawal from alcohol, further disrupting normal homeostatic emotional function. Several new targets for such medications include GABA/glutamate modulators, an antagonist of corticotropin releasing factor, and modulators of NPY. Knowledge of the basic neurobiology of alcoholism can inform the animal models which can translate to the clinical situation. However, the clinical research can, in turn, help refine the animal models leading to more promising medications that have low toxicity and high likelihood of reducing relapse in human alcoholics.

#### No. 97D

### ALCOHOL RELAPSE-LIKE BEHAVIOR IN LABORATORY ANIMALS: THE NOCICEPTIN/ORPHANIN FQ SYSTEM: A POTENTIAL TARGET FOR THE DEVELOPMENT OF NEW PHARMACOTREATMENTS

Roberto Cicciocioppo, Ph.D. *University of Camerino, Dept of Pharmacology, Camerino, Italy*

#### SUMMARY:

Alcoholism is a chronic relapsing disorder and recurrent resumption of alcohol abuse after detoxification and abstinence is one of the principal characteristics of substance dependence on alcohol. High rates of recidivism present a considerable challenge for the treatment of drug and alcohol addiction such that relapse prevention has emerged as a central focus of treatment and medication development efforts. Two major factors have been identified to contribute to the persistence of addictive behavior and high risk of relapse long after withdrawal: conditioning and stress. Conditioning hypotheses are based on observations that relapse is often associated with exposure to ethanol-related environmental stimuli. According to this view, environmental stimuli that have become associated with the subjective actions of ethanol by means of classical conditioning throughout an individual's history of ethanol abuse elicit subjective states that

can trigger resumption of drug use. The other major factor implicated in the resumption of drinking includes subjective reactions provoked by stressful events. The significance of drug conditioning and stress as factors for relapse risk is well documented in the animal literature where using various reinstatement paradigms it has consistently been shown that presentation of cues predictive of drug availability or footshock stress elicit reinstatement of ethanol-seeking behavior in drug-free animals. Current literature demonstrates that cue reactivity is primarily under the control of the opioidergic, dopaminergic, and glutamatergic systems. On the other hand stress-induced relapse is mainly controlled by the corticotropin-releasing factor (CRF) system. Pharmacological manipulation with the nonselective opioid antagonist naltrexone blunt cue reactivity in humans and reduces conditioned reinstatement of alcohol-seeking in laboratory animals. This compound is, however, ineffective in controlling reactivity to stress. Conversely, antagonism at CRF receptors results in prevention of stress but not cue-induced relapse.

Nociceptin/orphanin FQ (N/oFQ), a recently isolated neuropeptide is the endogenous ligand of the opioid receptor-like 1 (NOP) receptor. This peptide exerts marked functional antagonist effects on endogenous opioid and corticotrophin-releasing factor (CRF) systems. Moreover, evidence exists that N/oFQ modulates dopaminergic, noradrenergic and glutamatergic neurotransmission in different brain sites via a presynaptic inhibitory action. Studied conducted in our laboratories have demonstrated that activation of NOP receptors by N/oFQ reduces ethanol self-administration, prevents morphine- and ethanol-induced conditioned place preference, and reverses several behavioral effects of stress, including stress-induced anorexia and stress-induced reinstatement of alcohol-seeking behavior. Recent data also showed that N/oFQ given into the lateral cerebroventricle or into the central amygdala prevents the reinstatement of extinguished ethanol-seeking behavior induced by exposure to ethanol-associated environmental stimuli in rats.

Overall these findings suggest that the N/oFQ-NOP system may have an important role in the control of alcohol related behaviors and identify this system as a promising target for "anti-relapse" medications.

*Support Contributed By: NIAAA AA01435 (to FW); (EU TARGALC QLRT-2001-01048).*

No. 97E

### **DEVELOPMENT OF A HUMAN LABORATORY MODEL OF RISK FACTORS FOR RELAPSE IN ALCOHOL DEPENDENCE: IMPLICATIONS FOR PREDICTING MEDICATION EFFICACY IN CLINICAL TRIALS**

Barbara J. Mason, Ph.D.

#### **SUMMARY:**

Alcoholism and addiction have been conceptualized as consisting of 3 repeating phases: 1.) binge/intoxification, 2.) acute withdrawal and 3.) protracted abstinence. Opioid antagonists have shown efficacy for reducing severity in the binge/intoxification phase in clinical trials, as well as in animal and human lab studies involving alcohol administration in both dependent and nondependent subjects. The protracted abstinence phase involves a state of heightened vulnerability to relapse following acute withdrawal that has been linked to prolonged activation of the brain stress arousal systems, and a heightened responsivity to internal cues, e.g. negative affect, and external cues, e.g. the sight and smell of alcohol, that are precipitants of relapse in dependent but not nondependent subjects. We developed a human laboratory model of risk factors for relapse in protracted abstinence to provide an early phase screen for potential medications for protracted abstinence, as an alternative to older human laboratory methods involving alcohol administration.

The human lab model of protracted abstinence involves randomly assigning non treatment-seeking paid volunteers with alcohol dependence to one week of double-blind, placebo-controlled study medication. Standardized assessments of drinking and key aspects of protracted abstinence, i.e. mood, sleep, and urge to drink, are collected at the end of the medication phase. Subjects' subjective and physiological responsivity to pairs of affective (negative, neutral, positive) and beverage (alcohol, water) cues are measured to determine if study drug modifies responsivity to these laboratory analogues of risk factors for relapse. Additionally, standardized measures of safety, compliance and abuse potential are collected. It is hypothesized that medications from different neuropharmacological domains will be active in different components of this human model of risks for relapse in protracted abstinence.

This highly standardized laboratory assessment of responsivity to alcohol and affective cues, in combination with naturalistic measures of drinking, mood and sleep, offers a screen for potential anti-drinking relapse medications that can be reliably replicated across multiple laboratories, and which offers an alternative to older human laboratory methods involving alcohol administration, that violate the condition of protracted abstinence.

#### **REFERENCES:**

1. Heilig M, Egli M: Pharmacological Treatment of Alcohol Dependence: Target Symptoms and Target Molecules. *Pharmacology and Therapeutics*, in press.
2. O'Brien, CP: Anti craving medications for relapse prevention: a possible new class of psychoactive medications. *Am J Psychiatry* 2005;162:1423-31.
3. Koob GF: Alcoholism: allostasis and beyond. *Alcohol Clin Exp Res* 2003; 27:232-243.

### **SYMPOSIUM 98—SAME SEX CIVIL MARRIAGE: HISTORICAL AND MENTAL HEALTH RESEARCH PERSPECTIVES**

#### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participants will 1) explore the historical, social, psychological and research issues involved in the evolution of the same-sex marriage; and 2) understand the impact of the same-sex marriage debate on the social and internal experience of gays and lesbians and their supporters.

No. 98A

### **GAY MARRIAGE IN HISTORY: NEW MANIFESTATIONS OF OLD TRADITIONS**

Robert P. Cabaj, M.D. *San Francisco Community Behavioral Health Services, Behavioral Health Services, 1380 Howard Street, 5th Floor, San Francisco, CA, 94103*

#### **SUMMARY:**

Though there has been immense amounts of publicity about same-sex marriage, the focus is usually on the struggle for rights at an individual state, city, or national level. The fact that there is a long history of same-sex marriages that have been sanctioned by both civil law and religious institutions is often overlooked. The support and bias against same sex-marriage was influenced by economic and political factors--much as today. The historical perspective and understanding will further support the mental health benefits from allowing same-sex marriage.



No. 98B

**GAY MARRIAGE IN THE NETHERLANDS: THE FIRST FIVE YEARS**

Nicolaas F. Hettinga, M.D. *Keizergracht 810, Amsterdam 1017-ED, 1017-ED, The Netherlands*

**SUMMARY:**

The law legalizing gay civil marriage in the Netherlands took effect on April 1, 2001. It eliminated any difference between gay and heterosexual relationship regulations. It did not completely eliminate discrimination against adoption and custody rights for same sex couples, because Dutch law recognizes only two parents of different sexes. But custody regulations have been adapted to the new situation as much as possible to ensure the rights of parents, custodians, caretakers, and children.

In this presentation, I will discuss what preceded this law. Since the Netherlands was the first country in the world to have a law recognizing same sex marriage, it is important to know what obstacles had to be overcome before its realization. The Netherlands has established a reputation of legalization of difficult issues that in most other countries remain in the "gray zone", like the legalization of the use of cannabis, physician assisted suicide and prostitution.

The experiences of five years of gay civil marriage in the Netherlands of married gay and lesbian couples, the children involved and the opinions and attitude of the general population will also be discussed.

No. 98C

**LEADING THE WAY: CANADIAN SAME SEX MARRIAGE**

Laura M. Chapman, M.D. *University of British Columbia, Vancouver Hospital, 165 East 59 Ave, Vancouver, BC, V5X 1X7, Canada, Gene A. Nakajima, M.D.*

**SUMMARY:**

Canada became the fourth country to grant national recognition to same sex civil marriage. Ontario, the province hosting this year's APA was the first to legalize same-sex marriage. Because Canada (unlike the Netherlands and Belgium) does not have any residency requirements for marriage, many US citizens have traveled there in great numbers to be wed. Unfortunately, these marriages in general have not yet been recognized in the US.

What factors led to Canada's greater acceptance of lesbian and gay marriages? In Canada there is a greater separation between church and state. In 1982, the constitution was reformed by the Charter of Rights and Freedom that increased protection for human rights and minorities and directly led to a more favorable legal environment for same-sex marriage.

Following Court of Appeal rulings in the provinces of Ontario and British Columbia in June and July 2003, which declared heterosexual definitions of marriage unconstitutional, the federal government announced it would not appeal the decisions and would seek a free vote in parliament. That vote occurred on June 28, 2005 and made same-sex marriages legal in all 10 provinces and 3 territories in Canada. By the time the parliamentary vote occurred, all but 2 provinces had already changed their legal definition of marriage. There have been a large number of same-sex marriages since the initial court rulings in 2003 and an increasing number after the nation-wide legal amendments. There have been few 'gay divorces,' although those that have occurred have garnered much media attention. Surveys have indicated a strong majority of public support although there has been a vocal minority in opposition. Many recently married gay and lesbian individuals report increased satisfaction and stability in their relationships, a sense of validation, public recognition, reduced marginalization, and enhanced social support.

No. 98D

**SIX WEEKS OF MARRIAGE VOWS IN SAN FRANCISCO: PERSONAL PERSPECTIVES**

Ellen Haller, M.D. *University of California San Francisco, Department of Psychiatry, 401 Parnassus Ave, San Francisco, CA, 94143-0984, Mary E. Read, M.D.*

**SUMMARY:**

Shortly after San Francisco began granting same sex marriage licenses in February, 2004, thousands of gay and lesbian couples flocked to City Hall to exchange vows. Initially, couples stood in long lines for many hours to await their turn, but after a few days, scheduling appointments by telephone was mandated. This presentation will cover the personal experiences of two lesbian psychiatrists: one drove from LA to be married in San Francisco's City Hall; reactions from family and friends will be discussed. The other had an appointment to be married, but just 4 days before her wedding, the California Supreme Court ruled that SF had to immediately cease and desist the granting of SSM licenses. Difficulties explaining these legalities to her 7 yo son will be described.

No. 98E

**SAME-SEX MARRIAGE FROM A MENTAL HEALTH RESEARCH PERSPECTIVE**

Robert M. Kertzner, M.D. *Columbia University, Psychiatry, 2154 Broderick Street, San Francisco, CA, 94115*

**SUMMARY:**

Civil marriage for same-sex couples has important mental health implications for lesbians and gay men as supported by several lines of research. The mental health impact of marital rights denial can be understood in light of research linking sexual orientation stigmatization and discrimination to increased psychological distress. Marriage itself confers a variety of material and symbolic benefits that provide psychosocial resources to couples and their dependents; these resources, in turn, enhance mental health. This presentation will review the above research findings and discuss the applicability and relevance of current mental health research to the issue of civil marriage for same-sex couples. With greater participation by lesbians and gay men in civil marriage, future research can address such questions as which lesbians and gay men benefit most from marriage and how access to the institution of marriage affects normative expectations of the life course by lesbians and gay men.

**REFERENCES:**

1. Chapter in Book--Cabaj RC: History of Gay Acceptance and Relationships. In *On the Road to Same-sex marriage: A supportive guide to psychological, political, and legal issues*, edited by Cabaj RP, Purcell, DW, San Francisco, Jossey-Bass, 1998, pp1-28.
2. Kalk T, Ridders C: *Wij gaan ons echt verbinden [We are going to marry]*. Amsterdam, Schorerstichting, 2003.
3. Cabaj RP, Purcell DP (eds): *On the road to same-sex marriage: a supportive guide to psychological, political, and legal issues*. San Francisco, Josey-Bass, 1998.
4. Cabaj RP, Purcell DP (eds): *On the road to same-sex marriage: a supportive guide to psychological, political, and legal issues*. San Francisco, Josey-Bass, 1998.
5. Herdt G, Kertzner R: I do, but I can't: marriage denial and mental health among lesbians and gay men in the United States. *Journal of Sexuality Research and Social Policy*, in press.

## SYMPOSIUM 99—PSYCHIATRY IN AMSTERDAM: ACUTE PSYCHIATRIC SERVICES IN A METROPOLITAN AREA

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to recognize the difficulties encountered in delivering acute psychiatric services in a metropolitan area, and have gained information on the recently implemented innovations in the organisation of these services in the city of Amsterdam. In this symposium, we will give a historical outline of the developments in acute psychiatric services in the metropolitan area of Amsterdam. The evidence regarding the link between urbanisation and the development of psychiatric disorders is discussed, based on Amsterdam research data. In addition, a benchmark study concerning the functioning of the six Amsterdam community admission units for acute patients is presented. A one-year prospective study evaluates the functioning of the gateway to these units, the so-called Temporary Transitional Unit. Finally, case histories illustrating the dilemmas regarding the Amsterdam model are presented. Summarising, the symposium highlights the complex psychiatric issues encountered in metropolitan areas, and the audience will be invited to express their views on good clinical practice in the realm of acute psychiatric care in big cities.

### No. 99A THE AMSTERDAM MODEL: PAST, PRESENT AND FUTURE

Hans Sanders M.D. *Mentrum Mental Health Organisation, SPDC, 2nd C. Huygenstraat 37-39, Amsterdam, 1054 AG*

#### SUMMARY:

As from 1975, a drastic reorganisation of the mental health care sector took place in the Netherlands. It marked the end of the large state psychiatric hospitals outside the city boundaries in rural areas. Instead, small psychiatric units were established in the cities, the so-called "social psychiatric services centres". These small-scale community facilities were to provide tailor-made psychiatric care to outpatients as well as inpatients, who were discharged from long-stay psychiatric wards in the country-side and went to live in the city. To this end "beds" were converted into "chairs", 24-hour admissions into day care (part-time treatment), long-stay admissions in short-term crisis intervention, large-scale psychiatric hospitals into small-scale community services located in the patients' neighbourhood (Cohen & Sanders, 1995). Rehabilitation and resocialisation were given the highest priority. The creed was "customised care" and "back to the community". In the Netherlands, this ideology to reintegrate psychiatric patients and psychiatric services into the community became known as the Amsterdam model. In this historical outline, positive and negative experiences with the Amsterdam model over the last two decades are presented.

### No. 99B URBANIZATION AS A RISK INDICATOR FOR PSYCHIATRIC DISTURBANCES

Jack J. Dekker, Ph.D. *Mentrum Mental Health Organisation, O&O, Klaprozenweg 111, Amsterdam, 1033 NN, Netherlands Antilles, Jaap Peen, Sr., Ph.D.*

#### SUMMARY:

In general, admission rates for mental disorders are higher in urban areas than in rural areas. In the Netherlands, it has been found that this applies to inpatient utilisation rates also. In a national study, the admission rate for the whole of the Netherlands was twice as high

in the group of most highly urbanised municipalities as in the group of least urbanised municipalities. Recently, it emerged that the urban/rural variations in admission rates in the Netherlands are reflected in true psychiatric morbidity rates. The authors found an urban/rural difference in total annual prevalence figures for psychiatric disorders in the population. The difference was also found for the separate disorders, mood disorders and substance-induced disorders, but not for anxiety disorders. More recently, the same results were found in the German National Health Interview and Examination Survey. In this lecture, we discuss the evidence regarding the link between urbanisation and the development of psychiatric disorders.

### No. 99C A ONE-YEAR PROSPECTIVE STUDY OF THE TEMPORARY TRANSITIONAL UNIT

Wijnand Mulder, M.D., *Mentrum Mental Health Organisation, 2nd C. Huygenstraat 37-39, Amsterdam, 1054 AG, The Netherlands, Cecile Gijsbers van Wijk, M.D.*

#### SUMMARY:

**Objective:** The Temporary Transitional Unit (TOA) is the gateway to the psychiatric intensive care units in Amsterdam. The objective of this facility was to create a buffer for the relief of acute compulsory admissions and thus reduce the period that patients had to stay in police cells or emergency rooms, and decrease the number of guest placements in psychiatric hospitals outside the city. After a historical outline of the problems and developments in psychiatric emergency services in Amsterdam, we will enter at length into how this Temporary Transitional Unit operates and its role and position in the psychiatric care system.

**Methods:** On the basis of a one-year prospective registration (January - December 2002), we report preliminary analyses of patient characteristics and admission figures of the TOA.

**Results:** Our results illustrate the complex psychiatric issues that are encountered in metropolitan areas. We will demonstrate that establishment of the TOA has led to a decrease in the number of guest placements outside the city over a steady increase in the number of compulsory admissions. The burden on the (seclusion capacity) of the psychiatric units has diminished, and the waiting period at the police stations has decreased considerably.

**Conclusions:** It is concluded that the TOA functions as a useful buffer within the Amsterdam psychiatric care system.

### No. 99D

## CONTROVERSIES AND DILEMMAS REGARDING THE AMSTERDAM MODEL: CASE HISTORIES

Hans Nusselder, M.D., *Mentrum Mental Health Organisation, SPDC, 2nd C. Huygenstraat 37-39, Amsterdam, 1054 AG, The Netherlands*

#### SUMMARY:

Many controversies and dilemmas regarding admission and discharge plague current mental health care services in the Netherlands. Is the psychiatric clinic allowed to refuse patients, when outpatient services consider admission indicated? Can patients with a compulsory measure be admitted to an open unit, and to what extent are seclusion and restraint an option in voluntary patients? What are the indications and contra-indications for inpatient care of borderline personality disorder patients? Is it safe to give patients a time-out outside the hospital in case of behavioural disorders? If psychiatric beds are scarce, is it justified to distribute them according to the "worst in, best out" principle? In what circumstances are compul-

sory treatment, seclusion and restraint considered "good clinical practice"? Is it unethical to discharge the homeless back to the street? Decisions like these are the daily routine of psychiatrists in big cities, but they regularly give rise to conflicts between outpatient and inpatient health care workers, nursing staff and patients. After a short introduction on the policy of the Mentrum acute psychiatric unit, located in the centre of Amsterdam, we will present three case histories illustrating the problems sketched in the above. The audience will be invited to offer their views on what is considered "good clinical practice".

No. 99E

### COMMUNITY ADMISSION UNITS IN AMSTERDAM: A BENCHMARK STUDY

Cecilia H.T. Gijbbers Van Wijk, M.D. *Mentrum Mental Health Organisation, SPDC c/ow, 2nd C. Huygenstraat 37-39, Amsterdam, 1054 AG, The Netherlands*, Wijnand Mulder, M.D.

#### SUMMARY:

**Objective:** The city of Amsterdam, The Netherlands, has six community admission units for acute psychiatric patients at her disposal, under the aegis of three distinct mental health care institutions. The nature and extend of differences in organisational structure, treatment policy and patient population between the units were largely unknown. Because of a persisting shortness of admission beds, local governors demanded more transparency regarding the quantity and quality of care delivered by the intensive psychiatric care units. To evaluate the functioning of these units, a benchmark study was performed.

**Method:** A semi-structured interview was held among leading representatives (psychiatrists, managers, nursing staff) of the six Amsterdam units and a comparable psychiatric admission unit in a small Dutch town. In addition, prospective figures were obtained from their computerised registration systems. A large number of relevant organisational, patient and treatment variables were compared.

**Results:** significant differences and similarities in the operation of the psychiatric units were found. Divergences can partly be explained and justified by differences in patient characteristics and differences in the organisational culture of the mental health care institutions.

**Conclusions:** Differences in acute psychiatric care between The Netherlands and the USA, and prevailing standards for 'good clinical practice' for closed psychiatric wards in the respective countries are discussed. In the Netherlands, a generally agreed upon standard for adequate care on psychiatric "intensive care" wards is lacking. Based on the results of this benchmark study, a prospective registration study is planned to investigate the quality and quantity of care-giving by the participating units, aimed at the effectuation of such a standard.

#### REFERENCES:

1. Cohen D, Sanders HE (1995): Day program based treatment in the Amsterdam city center. *Int J. of Social Psychiatry* 41: 120-131.
2. Peen J, Dekker J (2004): Is urbanicity an environmental risk-factor for psychiatric disorders? *The Lancet* 363: 2013-2014.
3. Allen, M.H. (1999). Level I psychiatric emergency services: tools of the crisis sector. *Psychiatric Clinics of North America*, 22, 713-734.
4. Book - Foley HS, Sharfstein SS: *Madness and Government: Who Cares for the Mentally Ill?* Washington, DC, American Psychiatric Press, 1983.
5. Burns T, Pribe S: The survival of mental health services: a pressing research agenda? *Brit J Psychiatry* 2004; 185: 189-190.

THURSDAY, MAY 25, 2006

### SYMPOSIUM 100—IDENTIFYING SUBTYPES IN OCD

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to recognize the heterogeneity of Obsessive Compulsive Disorder and identify meaningful subtypes based on OCD genetic, treatment response, neuroimaging and course data.

No. 100A

### OCD SUBTYPES AND DRUG TREATMENT RESPONSE

Wayne K. Goodman, M.D. *University of Florida, Department of Psychiatry, PO Box 100256, Gainesville, FL, 32610-0256*

#### SUMMARY:

Researchers and clinicians alike have long suspected that OCD is heterogeneous. Approaches used to identify clinically meaningful OCD subtypes have included biological markers, brain imaging, genetics, phenomenology, course, age of onset, comorbidities and treatment response. This presentation will focus on how pharmacological treatment response can inform us about the validity of putative OCD clinical subtypes (e.g., hoarding, tic-related, schizotypal, etc.). The corollary, which clinical factors (e.g., age of onset, duration of illness, severity, poor insight) help predict response to pharmacotherapy, will also be reviewed. Early trials in which antipsychotics were added to SRIs were based on the hypothesis that cases of OCD with comorbid chronic multiple tic disorders would benefit preferentially from this combination. In a double-blind, placebo-controlled trial of adjunctive haloperidol in patients unresponsive to fluvoxamine alone, only the group with comorbid tics showed significant improvement with the active combination. Although subsequent trials with atypical antipsychotics such as risperidone have generally supported the efficacy of adjunctive antipsychotics in SSRI monotherapy non-responders, the benefit seemed to be independent of whether tics are present or not. In the case of hoarders, this clinical subtype seems to be a negative predictor of response to pharmacotherapy.

No. 100B

### SUBTYPES OF OCD FROM A FAMILIAL PERSPECTIVE

Gerald Nestadt, M.D. *Johns Hopkins University, Department of Psychiatry, 300 N Wolfe St, Baltimore, MD, 21287*

#### SUMMARY:

The evidence that obsessive-compulsive disorder (OCD) is a heterogeneous disorder is gaining momentum. In order to establish distinct subtypes requires the identification of specific etiologies with unique or common pathophysiological mechanisms. While this is the ultimate goal, at this time our approach is directed toward the identification of subgroupings of patients distinguishable by means of a variety of independent variables. These may be based on phenomenology, treatment response, brain structure, and the like. Genetic research has the potential to identify the biochemical bases for specific disorders in general and distinct forms of these disorders in particular. While this is an attainable goal, hopefully in the near future, at this stage of our scientific effort, the critical step is to identify subtyping features that characterize similarities within affected families and differences between affected families. Several clinical features have emerged as useful for this purpose. These include characteristics such as age-at-onset, that appears to affect the likelihood that OCD will be familial; and clinical symptoms such

as hoarding behavior, that appears to 'run' within the same family. This presentation will discuss the utility of several clinical features of OCD as potential subtyping characteristics.

**No. 100C  
OCD SUBTYPES BASED ON COURSE OF ILLNESS  
AND CLINICAL FEATURES**

Jane L. Eisen, M.D. *Brown University, Butler Hospital, Providence, RI, 02906*

**SUMMARY:**

**Objective:** Potential OCD subtypes have been identified based on previous findings from studies of OCD clinical features, family studies, neuroimaging studies and treatment response. Obsessive Compulsive Personality Disorder (OCPD) has been linked to OCD in family studies. Hoarding has been linked to poor treatment response. The Brown Longitudinal Obsessive Compulsive Disorder Study was designed to investigate the course of OCD and identify potential OCD subtypes associated with course patterns. **Method:** The sample consisted of the 293 individuals between the ages of 18 and 65 who met DSM-IV criteria for primary OCD interviewed at intake and at year 1. Symptom content and severity was assessed using the Y-BOCS and the Longitudinal Interval Follow-up Evaluation (LIFE). Proportional hazard regression analyses were used to estimate the likelihood of remission from OCD. **Results:** Ninety-five (40.6%) subjects endorsed hoarding on intake. Those who endorsed any current hoarding were 6.3 times less likely to remit at year 1, compared to those without hoarding ( $p = .003$ ). No subjects with principal hoarding ( $N = 20$ ) remitted. Another putative subtype, OCD with comorbid OCPD, contained individuals diagnosed with comorbid OCPD at intake based on the Structured Clinical Interview for DSM-IV Axis II. Sixty-five (27.8%) subjects met criteria for comorbid OCPD at intake. Having OCD with OCPD significantly reduced the odds of remitting from OCD; those with comorbid OCPD were 2.9 times less likely to remit as compared to those without OCPD ( $p = .07$ ). In addition, there were differences in age of onset in these two subtypes. Subjects with hoarding as their principal symptom had a significantly later mean age of onset of OCD compared to those with other principal OCD symptoms ( $p = .022$ ). Comorbid OCPD was associated with early age of onset of OCD (onset < age 18),  $X^2 = 9.82$ ,  $df = 1$ ,  $p = .002$ . **Conclusion:** Results of a large prospective study of the longitudinal course of OCD suggest that hoarding is associated with later onset of OCD while OCD with comorbid OCPD is associated with earlier onset. Both subtypes have course patterns characterized by lower rates of remission.

**No. 100D  
NEUROBIOLOGICAL HETEROGENEITY IN OCD**

Sanjaya Saxena, M.D. *Semel Institute for Neuroscience and Human Behavior, UCLA Dept. of Psychiatry and Biobehavioral Sciences, 300 UCLA Medical Plaza, Room #2229, Los Angeles, CA, 90095*

**SUMMARY:**

Although standard diagnostic classifications consider obsessive-compulsive disorder (OCD) to be a single diagnostic entity, factor and cluster analytic studies have shown that several different OCD symptom factors exist. These symptom factors have different patterns of genetic inheritance, comorbidity, and treatment response. In addition, early-onset OCD appears to be a distinct subtype. Despite this phenotypic heterogeneity, most neurobiological and treatment studies of OCD have grouped patients with diverse symptom patterns and ages of onset together. Investigating the neurobiology of OCD symptom factors and subtypes is critical to the identification of

specific endophenotypes that can be targeted in future research, and may also aid the development of more effective, syndrome-specific treatments.

Functional neuroimaging studies examining the neural correlates of OCD symptom factors suggest that different OCD symptom factors are mediated by different patterns of brain activity. These studies, and their implications for the functional model of OCD pathophysiology, will be reviewed.

Very few neuroimaging studies have examined the baseline neural correlates of specific OCD symptom factors. Rauch and colleagues (1998) found that the severity of aggressive / harm / checking symptoms correlated significantly with resting-state brain activity in bilateral striatum, while symmetry / arranging / repeating symptoms had a trend toward negative correlation with activity in right striatum. Contamination / cleaning symptoms correlated with activity in bilateral anterior cingulate gyrus (AC), left orbitofrontal cortex (OFC), and other cortical areas. Saxena et al (2004) found that OCD patients with the compulsive hoarding syndrome had significantly lower glucose metabolism in the posterior cingulate gyrus than normal controls, and lower dorsal AC metabolism than non-hoarding OCD patients. Across all OCD subjects, the severity of hoarding/saving symptoms was negatively correlated with activity in the dorsal AC. These results suggested that compulsive hoarding is a neurobiologically distinct subgroup or variant of OCD, whose symptoms are mediated by lower activity in the cingulate cortex. Only one functional neuroimaging study has examined age of onset, finding significant differences between early- and late-onset OCD patients in regional brain activity.

Several neuroimaging studies have provoked symptoms in specific sub-populations of OCD patients with the same primary symptom factor. In patients with primary contamination/washing OCD, symptom provocation has most often activated the caudate nucleus, thalamus, OFC, and inferior frontal gyrus (IFG). A provocation study of compulsive checkers also showed activation of the OFC. Mataix-Cols et al (2004) studied a heterogeneous group of OCD patients and controls with functional magnetic resonance imaging and found a distinct pattern of activation associated with provocation of each symptom dimension. OCD patients demonstrated significantly greater activation than controls in AC, medial OFC, and caudate during provocation of contamination/washing symptoms; putamen/globus pallidus, thalamus, AC, OFC, and dorsal cortical areas during provocation of checking urges; and precentral gyrus and OFC during hoarding provocation.

Taken together, these studies suggest that different OCD symptom dimensions have different but overlapping neural substrates involving abnormally high activity along paralimbic frontal-subcortical circuits. Compulsive hoarding and early-onset OCD may be neurobiologically distinct subtypes or variants of OCD, and may require different treatment approaches.

**REFERENCES:**

1. Shapira NA, Ward HE, Mandoki M et al: A double-blind, placebo-controlled trial of olanzapine addition in fluoxetine-refractory obsessive-compulsive disorder. *Biol Psychiatry* 2004; 55:553-5.
2. Nestadt G, Samuels JF, Riddle MA, Bienvenu OJ, Liang KY, Grados MA, Cullen B. Obsessive-compulsive disorder: defining the phenotype. *J Clin Psychiatry*. 2002;63 Suppl 6:5-7.
3. Eisen, J.L., Coles, M.E., Shea, M.T., Pagano, M.E., Stout, R.L., Yen, S., Grilo, C.M., Rasmussen, S.A. Clarifying the convergence between obsessive compulsive personality disorder criteria and obsessive compulsive disorder. (in press). *Journal of Per.*
4. Saxena S, Brody AL, Maidment KM, Smith EC, Zohrabi N, Katz E, Baker SK, Baxter LR: Cerebral glucose metabolism in obsessive-compulsive hoarding. *Am J Psychiatry* 2004; 161: 1038-1048.

## SYMPOSIUM 101—VIRTUAL ENVIRONMENTS AND CONVERGENT MEDIA TECHNOLOGY

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be familiar with historical aspects, current concepts, and future trends in research and practice involving virtual environments and convergent multimedia technologies of relevance to psychiatry.

### No. 101A VIRTUAL REALITY ASSETS FOR ASSESSMENT, THERAPY, AND REHABILITATION

Albert A. Rizzo, Ph.D. *University of Southern California, Institute for Creative Technologies and the School of Gerontology, 2310 Scarff Street, #4, Los Angeles, CA, 90007*

#### SUMMARY:

After an early period of inflated expectations and limited delivery, Virtual Reality (VR) technology has emerged as a viable tool for assessment, therapy and rehabilitation applications (Rizzo, Schultheis, Kerns & Mateer, 2004; Weiss & Jessel, 1998; Zimand, Anderson, Gershon, Graap, Hodges, & Rothbaum, 2002; Glantz, Rizzo & Graap, 2003; Rizzo and Kim, 2005). Virtual reality integrates real time computer graphics, body tracking devices, visual displays, and other sensory input devices to immerse a participant in a computer generated virtual environment (VE) that changes in a natural way with head and body motion. The capacity of VR technology to create controllable, dynamic, interactive three-dimensional stimulus environments, within which behavioral responding can be recorded and measured, offers clinical assessment and intervention options that are not available using traditional methods. Much like an aircraft simulator serves to test and train piloting ability under a variety of controlled conditions, VEs have been developed to present simulations that target human cognitive, psychological and functional processes that are relevant for assessment, therapy and rehabilitative purposes. This emerging computer-driven simulation technology appears to be well matched to the assessment and rehabilitation needs of persons with various forms of Central Nervous System (CNS) dysfunction and mental disorders. As R&D in this field continues to grow, VR is expected to continue to advance the scientific study of normal cognitive, psychological and motor processes and to improve our capacity to understand, measure, and treat the impairments typically found in clinical populations.

VR applications are now being developed and tested which focus on component cognitive processes including: attention, executive functions, memory, and spatial abilities. Additionally, a wide variety of VEs have been developed to address psychological conditions (e.g., anxiety disorders) and motor impairments (i.e. reaching, grasping and gait). Functional VE training scenarios have also been designed to test and teach instrumental activities of daily living such as street-crossing, automobile driving, meal preparation, supermarket shopping, use of public transportation, and wheelchair navigation. These initiatives have formed a foundation of work that provides support for the feasibility and potential value of further development of assessment and rehabilitation VR applications.

I will briefly present an introductory overview of VR technology and the rationale for its use in assessment, therapy and rehabilitation. This will be followed by a specification of the assets that are available with VR applications in assessment, therapy and rehabilitation. Within that context, examples of virtual environments that illustrate each asset will be presented. Embedded within this critical review of the field, will be exemplars of VR applications that have added value and those that illustrate the crime of technological overkill! The value of a multidisciplinary approach for the design and implementation of VR will be emphasized with examples spanning the

fields of rehabilitation, psychiatry, psychology, neuroscience, physical therapy, occupational therapy, special education and social work.

### No. 101B WHY SIMULATE? THE COGNITIVE NEUROERGONOMICS OF VIRTUAL ENVIRONMENTS.

Henry J. Moller, M.D. *University of Toronto, Department of Psychiatry, 7-Main, 399 Bathurst St., Toronto, ON, M5T 2S8, Canada*

#### SUMMARY:

Biological psychiatry has struggled in its attempt to objectively delineate inherently mental constructs relevant to our patient's conscious and unconscious experiences. Computer simulations are increasingly able to mimic real-world perceptual and sensorimotor processes that may help in understanding and potentially treating functional deficits. This is particularly true for cognitive and attentional processes common to many psychiatric and neurologic disorders. Through the use of real-time monitoring of behavioural performance and psychophysiologic parameters, it becomes possible to better understand ergonomic aspects of the conditions we treat. Fitness-to-drive and cognitive aspects of scholastic or work performance are specific examples affecting patients with cognitive or psychomotor dysfunction. Escalating reliance on technology, with all its inherent advantages and problems, has also made human-computer interaction a topic of more general interest to psychiatry. Virtual environments seem relevant to better understand this evolving phenomenon.

### No. 101C CAN VIRTUAL REALITY BE USEFUL FOR THE STUDY OF BRAIN FUNCTIONS?

Pierre Boulanger, Ph.D. *University of Alberta, Department of Computing Science, 2-21 Athabasca Hall, Edmonton, AB, T6G 2E8, Canada*

#### SUMMARY:

The field of Virtual Reality (VR) has come a long way since the early days of costly graphic machines and bulky head mounted displays. Today's low cost VR systems can now be used in clinical studies for the treatment of phobias or mounted inside an fMRI machines to create controlled visual and auditory stimulations. During this presentation, I will try to show how VR really offers the potential to develop testing and training environments capable of precise control of complex stimulus presentations in which the various human cognitive systems can be accurately studied. In this presentation, we will review the current state-of-the-art of this new exciting technology and present recent experiments showing how VR is used for the study of brain activities during spatial navigation tasks or for the rehabilitation of stroke patients.

### No. 101D MUSIC TRIGGERED AVATARS: A NEW WAY TO EXPRESS EMOTION IN THE VIRTUAL WORLD

Robyn Taylor, B.S.C. *University of Alberta, Department of Computing Science, 2-21 Athabasca Hall, Edmonton, AB, T6G 2E8, Canada*, Pierre Boulanger, Ph.D.

#### SUMMARY:

We describe an immersive music visualization application, which enables interaction between a live musician and a responsive virtual character. The character reacts to live performance in such a way that it appears to be experiencing an emotional response to the music

it hears. We modify an existing tonal music encoding strategy in order to define how the character perceives and organizes musical information. We reference existing research correlating musical structures and composers' emotional intention in order to simulate cognitive processes capable of inferring emotional meaning from music. The ANIMUS framework is used to define a synthetic character that visualizes its perception and cognition of musical input by exhibiting responsive behaviour expressed through animation. In this presentation, we will also explore the applications of this new avatar technology to emotional/psychological rehabilitation.

**No. 101E**  
**THE EVOLUTION OF CLINICAL VR SIMULATION**  
**OVER THE PAST TEN YEARS**

Ken Graap, M.Ed. *Virtually Better, Inc, 2450 Lawrenceville Hwy, 101, Decatur, GA, 30033*

**SUMMARY:**

In the past 10 years, Virtual Reality (VR) design and development has grown rapidly (Glantz, Rizzo & Graap, 2003). Improvements are in part related to the advances in desktop computing power and associated 3D display technology that together have allowed VR to evolve from simplistic models and sparse environments (e.g., early virtual heights applications used in acrophobia treatment) to sophisticated multidimensional, interactive stimuli that include visual, auditory, tactile, and olfactory components (i.e., virtual alcohol cues) (Bordnick, et al, 2004) and VR Iraq (Graap & Rizzo, 2004).

VR systems are being utilized in a variety of research and clinical settings (e.g., anxiety, addiction, and speech pathology) which will be highlighted. The computer game design tools which now underlie much VR simulation design are allowing individual research centers to design environments to address specific research questions. The skill set required to build VR is available at most academic research centers and some VR content designed in this manner is being placed in the public domain. Several public domain applications (i.e., spider phobia and claustrophobia) will be reviewed.

**REFERENCES:**

1. Rizzo, A.A. & Kim, G. (2005). A SWOT analysis of the field of Virtual Rehabilitation and Therapy. *Presence: Teleoperators and Virtual Environments*. 14(2), 1-28.
2. Sanches-Vives MV, Slater M. From presence to consciousness through virtual reality. *Nature Neuroscience Reviews* 2005; 6:332-9.
3. Journal Article Glantz, K., Rizzo, A.A. & Graap, K. (2003). Virtual Reality for Psychotherapy: Current Reality and Future Possibilities. *Psychotherapy : Theory, Research, Practice, Training*, 40, 55'67.

**SYMPOSIUM 102—A RESEARCH AGENDA**  
**FOR DSM-V CONCERNING RELIGIOUS**  
**AND SPIRITUAL ISSUES IN THE**  
**DIAGNOSTIC PROCESS**

**APA Corresponding Committee on**  
**Religion, Spirituality, and Psychiatry**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, participants will be able to identify the key research findings and research needed to revise the DSM in relation to religious and spiritual issues, with respect to the following categories: depression, anxiety disorders, substance use disorders, disorders of children and adolescents, and personality disorders.

**No. 102A**  
**RELIGIOUS AND SPIRITUAL ASPECTS IN THE**  
**DIAGNOSIS OF DEPRESSION**

Dan G. Blazer II, M.D. *Duke University Medical Center, Duke University Medical Center, Box 3003, Durham, NC, 27710*

**SUMMARY:**

Psychiatrists who diagnosis and treat the depressive disorders, especially major depression, have increasingly assumed that the disorder has a primary biological origin and that the symptoms deriving from the underlying pathophysiology are primarily unaltered by the social and cultural context from which the symptoms emerge. In addition, the shaping of symptoms by psychological factors, perhaps as mediators of the interaction between biological predispositions and social contributors, has been underemphasized despite the recognition of the critical role of social and psychological factors in the origin of depression. In this presentation, the author will discuss the shaping of depressive symptoms by religious and spiritual factors. One way to view depression expressed from biopsychosocial origins is through the lens of religious and spiritual factors. Religious factors can be conceived as major contributors to the social and cultural shaping of symptoms of depression. For example, in some religious traditions overt expressions of emotional pain may be encouraged and therefore symptoms of depression are magnified, especially the negative psychological symptoms, such as crying and expressions of hopelessness. In other traditions, the same symptoms may be suppressed and therefore somatic symptoms of depression may dominate. Spiritual factors may be conceived as deriving from within the individual, more private and autonomous than religious factors. Though some may deny the unique origin of spiritual factors, most cultures have witnessed long traditions of spiritual expression through meditation, prayer, and a wide range of behaviors that reside under the canopy of the mystic. Psychiatrists who ignore these religious and spiritual factors may easily miss or misinterpret the symptoms of depression and therefore become much less effective as therapists. DSM-V must consider the complex yet rich religious and spiritual context from which the symptoms of depression arise.

**No. 102B**  
**RELIGIOUS AND SPIRITUAL ASPECTS OF THE**  
**DIAGNOSIS OF ANXIETY DISORDERS AND**  
**ADJUSTMENT DISORDERS**

Samuel B. Thielman, M.D. *Duke University, Department of Psychiatry, 811 Ridge Place, Falls Church, VA, 22046, Gerrit Glas, M.D.*

**SUMMARY:**

Current research demonstrates the importance of religion and spirituality in shaping the individual response to psychological stressors. Both anxiety disorders in general, and PTSD in particular represent exaggerated responses to stressful life events. The response to trauma, in particular, appears to be shaped extensively by culture and worldview. The diagnosis of PTSD remains controversial in many circles because it places particular emphasis on individual psychopathology and so can be seen as decontextualizing traumatic events from their social matrix. In fact, the response to trauma may well be significantly shaped by religious, philosophical, and cultural factors, but the extent and implications of this influence have yet to be explored. Based on clinical observations and available literature, we propose a number of questions for exploration. Some evidence suggests that "weakened faith" results in increased utilization of resources. The role of religion and spirituality in recovery needs to be further delineated. Does a belief in God, a belief in fate or free choice, or philosophical materialism affect the expression of post-trauma symptoms? When a person is part of a well differentiated religious community that provides opportunities for the presenting

of problems to clergy, elders or others in a position of authority, what is the effect on the outcome of post-trauma symptoms? What is the effect of such community support on the ability of the "victim" to continue to function within the life of their home community? Since, in general, people respond better to natural disasters than to man-made disasters, how do notions of evil and morality, whether religious or secular, shape the manifestations and course of post-trauma symptoms? How are symptoms of trauma response shaped by the meaning attributed to the event by the individual and their community?

In addition, Western societies during the past decade have identified the danger of over-pathologizing human experiences. Researchers must more fully explore the conceptual issues and involved in designating a response pathological and clarify the cultural and economic forces that shape our constructions of anxiety disorders and PTSD.

With respect to the other anxiety disorders and adjustment disorders similar questions should be investigated with respect to the social, cultural and religious embeddedness of these disorders. We want to suggest the following research questions: how should the boundary be drawn between adjustment disorder and existential problems leading to significant dysfunction and/or distress? What is the role and meaning of unresolved grief in the genesis of anxiety and adjustment disorder? How are religious obsessions and/or compulsions to be distinguished from practices that are normal within a certain religious group? Do we need a category for psychotic forms of anxiety such as 'anxiety psychosis'?

#### No. 102C SUBSTANCE DEPENDENCE AND SPIRITUALITY

Marc Galanter, M.D. *New York University School of Medicine, Department of Psychiatry, 550 First Avenue, NBV20N28, New York, NY, 10016*

##### SUMMARY:

This paper draws on recent findings to understand how the DSM diagnosis of substance dependence in remission can be considered when a patient is engaged in a Twelve-Step program. It will draw on related contemporary psychological research on attitude change and social influence, and on physiologic correlates of spirituality from neuroimaging. Major related clinical studies, such as the use of Twelve-Step Facilitation in the NIAAA Project MATCH, will be reviewed. The culture of spirituality has recently emerged as a prominent theme in America, particularly in addiction recovery. It is therefore important that this be understood within the context of the DSM V nomenclature under specific cultural features of diagnosis. The diagnosing physician should be conversant with how spirituality is seen in cultural settings as diverse as Eastern philosophies and religious revivalism. Although its impact on psychiatric problems is particularly relevant to Alcoholics Anonymous and addiction psychiatry, all mental health professionals should attend to this issue in relation to their patients. The focus in the DSM is more on change in an addict's observable behavior, like occupational compromise and drug seeking, and, research increasingly relies on medications and brief therapies because these are areas amenable to contemporary investigative techniques. The focus in this presentation will therefore be on how the non-professional spiritual perspective in addiction recovery and scientifically-grounded psychiatric diagnosis and treatment can be reconciled within the diagnostic nomenclature.

#### No. 102D RELIGIOUS AND SPIRITUAL ASPECTS OF PERSONALITY TRAITS AND DISORDERS

C. Robert Cloninger, M.D. *Washington University Medical School, Department of Psychiatry, Saint Louis, MO, 63110*

##### SUMMARY:

Current DSM criteria ignore spiritual development in personality disorders. This decision may be justified by the finding that severe personality disorders are distinguished reliably from others by low self-directedness. Moderate personality disorders also differ in low cooperativeness. Spirituality can be reliably measured by self-transcendence. Spirituality is weakly developed in all personality disorders but only significantly differs from that of people who are above average in maturity and well-being.

#### No. 102E RELIGIOUS AND SPIRITUAL ASPECTS OF CHILD AND ADOLESCENT PSYCHIATRIC DISORDERS

Mary Lynn Dell, M.D. *Emory University School of Medicine, Psychiatry and Behavioral Sciences, 492 Ponce de Leon Manor NE, Atlanta, GA, 30307, Allan M. Josephson, M.D.*

##### SUMMARY:

Child and adolescent psychiatrists are trained in the biological, medical, genetic, developmental, psychodynamic, family, and greater societal aspects of child and adolescent health and psychopathology. While most clinicians have always appreciated the role of religion/spirituality in normal development, the child's intrapsychic life, and in family life and priorities, the significance of this particular area in child and adolescent psychiatric practice is increasingly appreciated by professionals and the general public alike. Existing data and research about the roles of religion/spirituality in normal child and family development, as well as in psychopathology (mood, psychotic, anxiety, substance abuse, and conduct disorders) will be reviewed. In addition, suggestions for research exploring both the protective and beneficial aspects of religion/spirituality and its role in psychopathology and suboptimal functioning of children, adolescents, and families will be offered. Potential challenges to research in this area will be discussed, including funding, the availability of trained clinicians and researchers, ethical considerations, and time constraints and practical concerns in clinical and research venues. Finally, the authors will present ideas relevant to religion/spirituality in child and adolescent psychiatry - and hence adult development and psychopathology - for consideration in the formulation of DSM-V.

##### REFERENCES:

1. Blazer DG: *The Age of Melancholy: Major Depression and Social Psychiatry*. New York, Routledge, 2005.
2. Pargament KI, Smith BW, Koenig HG, Perez L: Patterns of positive and negative religious coping with major life stressors. *Journal for the Scientific Study of Religion* 1998; 37:710-724.
3. Galanter M: *Spirituality and the Healthy Mind: Science, Therapy and the Need for Personal Meaning*. New York: Oxford University Press, 2005.
4. Cloninger, C.R., Svrakic, D.M., Prybeck, T.R. (1993) A psychological model of temperament and character. *Arch Gen Psychiatry* 50:975-990.
5. Mabe PA, Josephson AM: Child and Adolescent Psychopathology: Spiritual and Religious Perspectives. *Child and Adolescent Psychiatric Clinics of North America* 2004; 13:49-70.

#### SYMPOSIUM 103—GLOBAL MENTAL HEALTH DISPARITIES: A CULTURAL PERSPECTIVE AND THE POTENTIAL FOR FORMAL AND INFORMAL INTERNATIONAL EXCHANGES APA Council on Global Psychiatry

##### EDUCATIONAL OBJECTIVES:

At the end of the symposium, participants will be more aware of international mental health programs and corresponding opportunities for international cooperation and assistance.

**No. 103A**  
**THE GLOBAL TREATMENT GAP IN MENTAL HEALTH CARE**

Robert Kohn, M.D. *Brown University, Department of Psychiatry and Human Behavior, Bulter Hospital, 345 Blackstone Blvd, Providence, RI, 02906*

**SUMMARY:**

**Objectives:** Mental disorders are highly prevalent and cause considerable suffering and disease burden. To compound this public health problem, many individuals with psychiatric disorders remain untreated although effective treatments do exist. The extent of this treatment gap will be reviewed.

**Methods:** We reviewed community-based psychiatric epidemiology studies that used standardized diagnostic instruments and that included data on the percentage of individuals receiving services for schizophrenia and other non-affective psychotic disorders, major depression, dysthymia, bipolar disorder, generalized anxiety disorder (GAD), panic disorder, obsessive compulsive disorder (OCD), and alcohol abuse/dependence. The median rates of untreated cases of these disorders were calculated across studies. Additional data on the availability of mental health resources worldwide will be presented.

**Results:** Thirty-seven studies had information on service utilization. The median treatment gap for schizophrenia, including other non-affective psychosis, was 32.2%. For the other disorders the gap was: depression, 56.3%; dysthymia, 56.0%; bipolar disorder; 50.2%; panic disorder, 55.9%; GAD, 57.5%; and OCD, 57.3%. Alcohol abuse and dependence had the widest treatment gap, 78.1%.

**Conclusion:** The treatment gap for mental disorders is universally large, though variable across countries. Likely, the gap reported here is under-estimated due to the unavailability of community-based data from developing countries where services are scarcer.

**No. 103B**  
**INTERNATIONAL COOPERATION IN REGIONAL PSYCHIATRIC PROGRAMS**

Rodrigo A. Munoz, M.D. *University of California at San Diego, Department of Psychiatry, 3130 5th Ave, San Diego, CA, 92103*

**SUMMARY:**

Scientific developments in psychiatry usually become public policy through the development and implementation of regulations, e.g., FDA's, CMS's and SAMHSA's. This Symposium draws on the reflections of a broad variety of private practitioners as to how this process and promulgations influence their practices. These reflections find that while the regulations can assure some important baselines as to the care and treatment of the psychiatrically ill, too often the "science" is weak, the assumptions as to patient characteristics is misconceived, and often the clinical complexity of private practice is missed.

**No. 103C**  
**TRAUMA TREATMENT AT THE CHILD RESCUE CENTER AT BO, SIERRA LEONE**

Michael A. Hollifield, M.D. *University of Louisville, Psychiatry, 501 E. Broadway, Louisville, KY, 40202, John D. Ogram, M.D.*

**SUMMARY:**

After a brutal 10-year civil war, Sierra Leone is now one of the poorest countries in the world. Among the survivors of the long conflict are orphaned children, whose parents and other family members disappeared or were killed in their presence.

In response to this situation, The Child Rescue Center (CRC) was founded as a collaborative effort between The United Methodist

Church in West Africa and the Floris United Methodist Church in Herndon, Virginia. The CRC supports and cares for approximately 40 children on site and 240 children in the community of Bo, Sierra Leone.

In addition to a paucity of general health care, there are even less resources for mental health services for children affected by the civil war in Sierra Leone. In response to this human need and global disparity, a team from Floris founded the trauma treatment program at the CRC. This program aims to help and support children by utilizing combined local and imported resources. This includes formal treatment, the use of powerful local cultural resources, education for CRC and community staff, and a bi-lateral dialogue that informs the trauma team and CRC personnel about the structural and treatment needs as well as the resilience that is used to enhance well-being and life planning for the children.

**No. 103D**  
**SOCIO-ECONOMICAL AND ENVIRONMENTAL REALITIES AND CULTURAL FACTORS AFFECTING CHILDREN'S MENTAL HEALTH AND TREATMENT IN AFRICA.**

Dolores Garcia-Moreno, M.D. *New York, NY, 10011-8634*

**SUMMARY:**

We learn about African Children's problems affecting their family life, threatened by economical difficulties, armed conflicts and the HIV/Aids pandemic. Gender role division and cultural beliefs, all have an impact in the mental health of the African children's school attendance and performance. Distances from water supply affect girls. Approximately 11 millions children are orphan in Sub-Saharan Africa due to AIDS right now. More than half of them are between 10 and 15 years of age, This means that 84% of all orphans to AIDS live in Sub-Saharan Africa.

Economical changes over the last few decades in the world had an impact in the participation of children in armed conflicts. Even after signing peace agreements, child soldiers are still recruited and even after they give up their guns, they are a t risk for recruitment to start the war in a new country, unless serious measures are taken to provide education and training of all those now idle children.

This is a moment in human history with the higher than ever number of adolescents in the world and many of them are concentrated in Africa. Some say that having a young population of children and adolescents unemployed, out-of school, may be a better predictor of wars than politics. The psychological impact on children is risk for school drop outs, socio-emotional problems and even criminal behavior.

There is a need for international collaboration in the creation, development and implementation of Demobilization and Rehabilitation programs to help reintegrate all those children to prevent further involvement in future wars.

**No. 103E**  
**AN INTERNATIONAL PERSPECTIVE ON DISABILITY**

Samuel O. Okpaku, M.D. *Meharry Medical College, 1005 D.B. Todd Boulevard, Nashville, TN, 37212-2801*

**SUMMARY:**

There is a social definition of sickness and the corresponding response to ill health. Similarly there is a social definition of disability which varies from culture to culture. Different societies provide different social security networks to their disabled populations.



## REFERENCES:

1. Kohn R, Saxena S, Levav I, Saraceno B: The treatment gap in mental health care. *World Health Organ* 2004; 82:858-866.
2. Njenga, F.N., Acuda, W. Patel, V., Maj, M. *Essentials of Clinical Psychiatry for Sub-Saharan Africa*. Masson, Milano, Italy, 2005.
3. Kinard EM. Methodological issues in assessing resilience in maltreated children. *Child Abuse Negl.* 1998; 22:669-80.
4. United Nations General Assembly. Hughes 2000, pg 401.
5. World Health Organization (2002) *The world health report 2002: Reducing risks, promoting healthy life*. Geneva: World Health Organization. 250. p.

## SYMPOSIUM 104—PSYCHIATRY ON THE SILVER SCREEN

### EDUCATIONAL OBJECTIVES:

The objective of this session is to increase awareness of the possibilities for using cinema to benefit both patients and psychiatrists. Film can be a vehicle for educating psychiatry, as well as a therapeutic tool. Portrayals of psychiatry in cinema shapes the patient's and his family's perceptions and expectations.

#### No. 104A THE MOVIES, THE MIND, AND HOLLYWOOD STEREOTYPES

Rudolf A. Feijen, M.D. *Mentrum Amsterdam, Langestraat 43-45, Amsterdam, 1015AK, The Netherlands*

#### SUMMARY:

It would be difficult to ignore the potential influence films have on the views of many people about psychiatrists, mental disorders and psychiatric treatments. Many influential films present a distorted, often stereotypical picture of psychiatry, a conception of what the film-maker believes or imagines psychiatrists and their patients to be.

It is important for psychiatrists to be aware of how their profession is depicted in films. In many instances awareness of these images may help to understand the resistance of patients and/or their families to medication or other types of therapy or the unreal expectation nourished by films that they will be rapidly cured once the psychiatrist dramatically uncover the single traumatic event that has caused their illness.

#### No. 104B TEACHING PSYCHIATRY BY MOVIE CLIPS: HOW TO OVERCOME STEREOTYPES

Bastiaan L. Oele, M.D. *Mentrum, Emergency psychiatry, Raamgracht 23, Amsterdam, 1011 KJ, The Netherlands*

#### SUMMARY:

Dr. Feijen did cover the problem of the stereotypes in his lecture. In this lecture we will discuss how to come around those and use movie clips in the process of improving in diagnostic and therapeutic skills. We will advise in a practical manner how to do this.

We will discuss and show clips about basic rules of treatment, boundary violations by patient and psychiatrist, several diagnostic problems and other subjects.

#### No. 104C CINEMA IN THE CONSULTING ROOM: THE SILVER SCREEN AS A PROJECTION SCREEN

Josephine M. Caubel, M.D. *Clinique R. De Gourmond, 18 rue Rémy de Gourmond, Paris, 75019, France*

## SUMMARY:

A knowledge of relevant films can be a significant benefit in one's work with patients. It can enable the therapist to be in better touch with the unconscious of his patients and to make an appropriate intervention that leads to a deepening of their associations (Glenn O.Gabbard, 1999) A key-concept in psychodynamic therapy (whether therapy based on the theoretical model of ego-psychology, object-relation-theory, self-psychology or attachment-theory) is transference. Transference is pervasive: at an unconscious level throughout the course of our personal and professional lives every day, we are all transforming those around us into various objects from the past. Movie characters can also constitute transference objects. Consequently, watching the same movie does not imply seeing the same things to different people. Our patients watch many films. Exploring their emotional reactions to movies in therapy potentially can enhance insight. Psychotherapists should go to the movies, and practice in observing them. Not so much in order to discover objectively THE unconscious content of films, but rather to explore and enhance their sensitivity to the multiple meanings and complex emotional influence of movies (Berman E., 2003). A psychodynamic interpretation of a movie will be used as a starting point for a discussion on this film, as well as on clinical implications.

#### No. 104D THE USE OF FILM IN A PSYCHODYNAMIC TREATMENT

Willem C. Tuinebreijer, M.D. *GGD Amsterdam, Nieuwe Achtergracht, Amsterdam, 1013LV, The Netherlands*

#### SUMMARY:

As other forms of art, cinema has the power to find its way directly to the unconscious. Recommending a film to our patients can be a useful intervention in psychodynamic psychotherapy. After a theoretic introduction, case study material will be presented to illustrate this statement.

#### REFERENCES:

1. Schneider I: *The Theory and Practice of Movie Psychiatry*. *Am J Psychiatry* 1987; 144:996-1003.
2. Robinson DJ *Reel Psychiatry movie portrayals of psychiatric conditions USA Rapid Psychler Press* 2003.
3. Gabbard GO, Gabbard K: *Psychiatry and the cinema* Washington, DC, American Psychiatric Press, 1999.
4. Hesley JW, Hesley JG: *Rent two films and let's talk in the morning*. New York, John Wiley&Sons, Inc.

## SYMPOSIUM 105—TREATMENT OF PERSONALITY DISORDERS: PREVIEW OF TPD IV

### EDUCATIONAL OBJECTIVES:

“At the conclusion of this symposium, the participant should be able to identify whether patients with severe personality disorders are treatable and, if so, what therapies are most helpful.”

#### No. 105A TREATMENT OF THE NARCISSISTIC PERSONALITY

Elsa F. Ronningstam, Ph.D. *Harvard University, Department of Psychiatry, 115 Mill Street, Adult Outpatient Clinic, Belmont, MA, 02178, John T. Maltzberger, M.D.*

**SUMMARY:**

The understanding and treatment of people with narcissistic personality disorder, NPD, have been extensively debated over the past forty years. As a result, a broad range of treatment modalities are now available. Although there are ample clinical accounts of treatment of NPD, studies of course and outcome of treatment, and comparison of different modalities are still awaiting. The objective of this presentation is to outline and discuss technical advances that address the specific characterological traits and interactional patterns in narcissistic patients that are obstacles to changeability and lead to specific challenges in the treatment. As psychoanalytic psychotherapy and psychoanalysis have long been considered the treatment of choice for narcissistic patients, recent advances on transference-countertransference enactment and the use of interpretation and empathy will be discussed. In addition, based on experience with multimodal treatment of people with personality disorders, a DBT influenced modified psychoanalytic psychotherapy for NPD is outlined that involves such central DBT steps as diagnostic education, validation, agreement on treatment targets, and working commitment.

**No. 105B  
TREATMENT OF HISTRIONIC PERSONALITY  
DISORDER**

Glen O. Gabbard, M.D. *Baylor College of Medicine, Department of Psychiatry, 6655 Travis, Suite 500, Houston, TX, 77030*

**SUMMARY:**

No body of controlled treatment research exists for histrionic personality disorder. Medication trials have not been conducted, and there is a broad consensus that psychotherapy is the treatment of choice. Much of the guidelines for treatment are derived from time-honored clinical wisdom, especially from psychoanalysis and dynamic psychotherapy. More recently, a small literature has emerged from cognitive therapy. Both approaches will be discussed. It is helpful to keep in mind that histrionic personality disorder actually represents a continuum from the more primitively-organized histrionic patient to the more neurotically-organized hysterical patient. Differentiation of the two ends of the spectrum will be elaborated, and the treatment implications will be discussed.

**No. 105C  
PSYCHOTHERAPY WITH CLUSTER "A"  
PERSONALITY DISORDERS**

Michael H. Stone, M.D. *Columbia University, Department of Psychiatry, 225 Central Park West, 114, New York, NY, 10024-6027*

**SUMMARY:**

Patients with Cluster "A" personality disorders present special challenges to psychotherapy. *Paranoid* patients, because of their mistrustfulness, are not comfortable about revealing personal details relevant to the therapeutic process. Jealous and other types of paranoid patients cannot be "talked out: of their suspiciousness; instead, the therapist will strive to enter the world of the patient, with the goal of gently helping the patient modify the various distorted beliefs. Because of their aloofness, *Schizoid* patients are generally uninterested in- and unmotivated for, psychotherapy. It becomes necessary for therapists to respect and tolerate the emotional distance the schizoid patient will insist on; such patients may terminate the therapy if the therapist is too vigorous in trying to overcome the barriers they have erected against unwanted intimacy. *Schizotypal* patients usually present with odd beliefs and habits, along with a diminished capacity to understand the meanings and motives of others (including their therapists). Because of their customary "oddness," they alienate the very persons whose friendship they may greatly desire. Here,

therapists have the task of educating schizotypal patients about the nuances and subtleties involved in their efforts to reach out-, and to understand the intentions of others.

It will often be helpful to understand the psychodynamics of one's Cluster "A" patients - but this will aid primarily in the fashioning of better supportive or behavioral interventions. Because of their limitations in empathy and self-reflective capacities (especially in those with paranoid and schizoid PDs), traditional psychoanalytic psychotherapy will seldom be useful or advisable. Group therapy may be helpful in overcoming - in schizoid patients - their disinclination to make relationships with others. But paranoid patients often find group therapy intolerable because of their mistrust of the intentions of the others. Medications have very limited applicability in Cluster "A" patients, except for the use of low-dose neuroleptics as a way of lessening anxiety in social encounters.

**No. 105D  
TREATMENT OF BPD**

John G. Gunderson, M.D. *McLean Hospital, Department of Psychiatry, 115 Mill street, Belmont, MA, 02478-9106*

**SUMMARY:**

Four major advances in treatment of Borderline Personality Disorder (BPD) will be described: 1) the growing influence of empirical results, special attention will be given to the study comparing DBT, TFP, and Supportive Therapy; 2) the increased usage of medications where non-psychiatrists provide individual therapy as a split treatment; 3) the dramatic rise of cognitive-behavioral strategies -- most specifically DBT; and 4) the recognition that focused time-limited interventions can have significant benefits, and may provide a sequence in which various interventions are initiated..

Implications that will be discussed include the need for treaters to be BPD specialists, the non-specific processes that characterize all effective therapies, and directions for future research.

**No. 105E  
TREATMENT OF CLUSTER "C" PERSONALITY  
DISORDERS AND ITS EMPIRICAL SUPPORT**

John C. Perry, M.D. *SMBD Jewish General Hospital, McGill Univer, Department of Psychiatry, 4333 Cote Ste-Catherine Road, Montreal, PQ, H3T 1E4, Canada*

**SUMMARY:**

**Objective.** The Cluster C disorders, Avoidant, Dependent and Obsessive-compulsive personality disorders, are common in treatment settings and frequently co-occur with Axis I disorders. This presentation reviews the effectiveness of treatment, highlighting recent advances.

**Methods.** The clinical and empirical treatment literature was reviewed, and some results were obtained from a metaanalysis of psychotherapeutic studies of cluster C disorders.

**Results.** Fifteen studies directly examine psychotherapy of Cluster C disorders either individually or as a group, and several other studies informed on its natural history. Advances in individual and group psychotherapy, primarily psychodynamic and cognitive-behavioral will be described as well as the role of pharmacotherapy, which has largely been studied in the context of treating Axis I disorders, such as depression. Effect sizes obtained in psychotherapy studies are generally large, and recovery rates are higher than for Cluster B disorders, although methodological issues affect the interpretation of recovery.

**Conclusion.** Cluster C disorders appear to respond effectively to most psychotherapies that have been studied. The time frames for

treatments studied, commonly a year or less, generally have not produced complete recovery, but significant improvement is the rule.

#### REFERENCES:

1. Ronningstam E: Identifying and understanding the narcissistic personality. New York, Oxford University Press, 2005.
2. Gabbard GO: Psychodynamic Psychiatry in Clinical Practice: Fourth Edition. Arlington, VA, American Psychiatric Publishing, 2005.
3. Stone MH: Abnormalities of Personality. New York: W W Norton, 1993.
4. Gunderson JG, Links P. Borderline personality disorder in treatment of psychiatric disorders (in preparation).
5. Perry JC. Cluster C personality disorders. In, Gabbard G., Ed., Treatments of DSM-IV TR Psychiatric Disorders: New Revised Edition. Washington, D.C., American Psychiatric Press, Incorporated., 2006.

## SYMPOSIUM 106—POST-DEPLOYMENT MENTAL HEALTH: TRANSLATING RESEARCH INTO CLINICAL PRACTICE

### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to: 1.) Recognize the mental health impact of stressors experienced by veterans returning from Iraq. 2.) Gain an understanding of recent efforts to translate new bench findings to novel clinical interventions targeting PTSD and related disorders. 3.) Receive an introduction to state-of-the art methods utilized to investigate psychiatric disorders in veterans exposed to warzone stressors, including neuroimaging, electrophysiology, and mass spectrometry-based techniques. 4.) Understand the mental health care needs and challenges in veterans returning from Iraq.

### No. 106A THE VA/DOD RESPONSE TO OIF/OEF MENTAL HEALTH CHALLENGES

Harold S. Kudler *Department of Veterans Affairs, Duke, Mental Health, Durham, NC, 27705*

#### SUMMARY:

**Objective:** Over 400,000 OIF/OEF veterans have separated from active duty, and only about 24% have sought VA healthcare. Although all combat veterans are affected by their experience, most are unlikely to report mental health problems due to associated stigma. A public health model may better engage veterans and their families as partners in managing and mastering readjustment issues.

**Results:** Up to 17% of troops returning from Iraq report symptoms consistent with depression, anxiety disorders or post-traumatic stress disorder (PTSD). Among OIF veterans seeking VA healthcare, the proportion of patients reported to have PTSD or other mental disorders has steadily increased over 18 months through 2004 to 26%. VA has partnered with the DoD to facilitate getting best clinical practice guidelines for combat stress implemented. However, support is also needed for the majority of veterans who are not seen within traditional medical settings. Changing the culture surrounding post-deployment readjustment will require the coordinated efforts of VA/DOD leadership, facilities, Veterans Centers, the new Seamless Transition system as well as the efforts of the new veterans and their families. Outreach efforts include early intervention training, support in non-medical settings, and reaching out to community and school systems, local congregations and other settings where veterans and their families may seek support.

**Conclusion:** VA/DoD partnership is crucial for ongoing assessment of needs and the support of new veterans and their families.

### No. 106B TRAUMATIC BRAIN INJURY IN OEF/OIF VETERANS: IMPLICATIONS FOR HEALTH CARE

Robin A. Hurley, M.D. *Salisbury VAMC and Wake Forest University, Psychiatry, 1601 Brenner (mailcode 11M), Salisbury, NC, 28144*, Katherine H. Taber, Ph.D.

#### SUMMARY:

**Objective:** The evidence for a high rate of traumatic brain injury (TBI) in OEF/OIF veterans and the implications for long term healthcare needs will be reviewed.

**Methods:** The recent medical literature was reviewed in relation to war-related brain injury, diagnosis, treatment, and long-term mental health sequelae.

**Results:** Experts agree that mild TBI is extremely under diagnosed and thus, not treated properly. The Defense and Veterans Brain Injury Center (DVBIC) estimated that 59-62% of OEF/OIF soldiers at Walter Reed had suffered at least a mild TBI (1). A study of civilians found that 34% of patients with mild TBI had a diagnosable psychiatric illness within one year of injury.

**Conclusion:** Soldiers with mild injuries commonly return to duty shortly after injury. Psychiatric or cognitive symptoms resulting from mild brain trauma may not become evident for weeks, months, or years. Traditionally, TBI patients receive assessment or treatment according to overtly presenting symptoms (e.g. depression, anger dyscontrol) without identification of the underlying cause. Providers may prescribe treatments that are not the best option for psychiatric symptoms secondary to TBI. These patients are significantly more vulnerable to compounding effects such as second injury syndrome or illegal substances abuse. Proper diagnosis can change the treatment plans, streamline resources, avoid inefficient costly misdiagnosis and treatment, and provide safe quality care for these veterans.

#### REFERENCES

1. Okie, NEJM, 2005;352(20):2043-2047
2. Fann, Arch Gen Psych, 2004;61(1):53-61

### No. 106C NEUROACTIVE STEROIDS AND STRESS IN PSYCHIATRIC DISORDERS

Christine E. Marx, M.D., *Duke University and Durham VA, Psychiatry, 508 Fulton Street, MHSL 116A, Durham, NC, 27705*

#### SUMMARY:

**Objective:** Neuroactive steroids (NS) are endogenous molecules that can be synthesized in the periphery or brain (neurosteroids) and impact the stress response. Selective serotonin reuptake inhibitors (SSRIs), certain antipsychotics, and nicotine administration elevate a number of NS in rodent models. The NS allopregnanolone (ALLO) demonstrates pronounced anxiolytic effects. We therefore investigated serum NS levels in patients with PTSD and nicotine dependence.

**Method:** NS levels were determined in two cohorts: Patients with PTSD receiving sertraline for 12 weeks (n=10) and male subjects with nicotine dependence (n=28). Pregnenolone (PREG) and ALLO levels were determined by gas chromatography/mass spectrometry preceded by high performance liquid chromatography. Dehydroepiandrosterone sulfate (DHEAS) levels were determined by radioimmunoassay.

**Results:** In patients with PTSD receiving sertraline for three months, increases in PREG were associated with decreases in symptomatology. In subjects with nicotine dependence, DHEAS levels were inversely correlated with negative affect in male smokers. ALLO levels were positively correlated with cotinine levels, a nicotine metabolite.

Conclusions: Neuroactive steroids may be candidate modulators of psychiatric symptomatology, including PTSD symptoms and negative affect in smokers. ALLO may be increased in smokers and contribute to the anxiolytic-like and stress-reducing effects of smoking frequently described by subjects with nicotine dependence.

**No. 106D  
MULTI-MODAL IMAGING ASSESSMENT OF PTSD**

Rajendra A. Morey, M.D. *Duke University and Durham VA, Psychiatry, 508 Fulton Road, Bldg 5, Durham, NC, 27705*

**SUMMARY:**

**Background:** Impaired attention is a prominent neurocognitive finding associated with PTSD. It is hypothesized that emotional dysregulation associated with the symptoms of PTSD which lead to impaired attention and executive function are a result of fronto-lymbic network dysfunction.

**Methods:** Multimodal imaging utilizes several complementary technologies. Functional MRI uses a blood oxygen dependent signal to construct images of metabolic activity in the brain corresponding to specific cognitive processes. Volumetric and morphometric data can be obtained using powerful computational techniques to process standard T1 and T2 images. Diffusion tensor imaging can extrapolate the directionality and strength of white matter tracts using signal information associated with the diffusion of water in the CNS. MR spectroscopy can assay levels of several neuroactive compounds in defined brain regions.

**Results:** Preliminary data from fMRI suggests dysfunction in the frontal-lymbic network of patients with PTSD. An executive task using visual stimuli with emotional distracters yielded reduced prefrontal activity and lack of discriminability in the amygdala.

**Conclusion:** Multimodal imaging combines imaging and computational techniques that can be correlated with behavioral, psychophysiological, and symptom measures to provide powerful insights into the neurobiology of PTSD.

**No. 106E  
THE AMYGDALA, STRESS, AND SUBSTANCE ABUSE**

Scott D. Moore *Duke University and Durham VA, Psychiatry,*

**SUMMARY:**

**Introduction:** The amygdala is a critical component of neural networks mediating emotional processing, including the response to stress. As such, amygdala dysfunction has been invoked causally in the etiology of depression and anxiety disorders, including posttraumatic stress disorder (PTSD). Additionally, much previous work has focused on the role of the amygdala in mediating effects of drugs of abuse.

**Methods:** Our work has focused on cellular and network physiology of the amygdala formation in an *in vitro* brain slice preparation. Our techniques include standard intracellular recording in conjunction with functional imaging using voltage-sensitive dyes. We are using this preparation to study circuitry sensitive to the effects of hormones, psychotropic medications, and drugs of abuse. In particular, our group has documented neurophysiological responses of the amygdala to application of alcohol.

**Results:** Alcohol has robust effects on both excitatory and inhibitory synaptic transmission in several regions of the amygdala. These effects are modulated by neuropeptides such as corticotropin-releasing factor and opioid peptides.

**Conclusions:** We believe that the amygdala *in vitro* preparation provides an excellent heuristic model system for investigations of the role of stress in maintenance of substance abuse disorders. In

addition, the amygdala is likely involved in a broader spectrum of post-deployment neurobehavioral disorders.

**REFERENCES:**

1. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine* 351:13-22.
2. Okie, NEJM, 2005;352(20):2043-2047.
3. Marx CM, Grobin AC, Deutch AY, Lieberman JA: Atypical antipsychotic drugs and stress. In *Handbook of Stress and the Brain*, edited by Steckler T, Kalin NH, Reul JM, Elsevier Press, 2005, pp301-313.
4. Pitman RK, Shin LM, Rauch SL (2001): Investigating the pathogenesis of posttraumatic stress disorder with neuroimaging. *Journal of Clinical Psychiatry*. 62:47-54.
5. Aggleton JP: *The Amygdala: A Functional Analysis*. Oxford University Press, 2000.

**SYMPOSIUM 107—IMPROVING CROSS-CULTURAL COMPETENCY IN PSYCHIATRIC TRAINING**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to 1. Understand the concept and components of cultural competence. 2. Recognize cultural characteristics of African American, Latino, South Asian, and Southeast Asian communities. 3. Demonstrate understanding of effective race and ethnically compatible psychiatric interventions.

**No. 107A  
PREPARING PSYCHIATRISTS OF THE FUTURE TO TREAT AN INCREASINGLY DIVERSE POPULATION**

Annelle B. Primm, M.D. *American Psychiatric Association, Office of Minority/National Affairs, 1000 Wilson Boulevard, Arlington, VA, 22209*

**SUMMARY:**

This presentation will focus on the state of mental health of diverse and underserved ethnic and racial populations and the importance of educating psychiatric residents about the manifestations of ethnic and racial disparities in mental health and mental health care. The presenter will discuss the knowledge, skills and attitudes necessary for the psychiatric trainee to be successful in treating multicultural populations and work towards eliminating disparities.

**No. 107B  
ASIA AND PSYCHIATRY: UNDERSTANDING THEIR PERSPECTIVES**

Consuelo C. Cagande, M.D. *Johns Hopkins University Hospital, Fellow, Child and Adolescent Psychiatry, 600 N. Wolfe St, CMSC-3E, Baltimore, MD, 21287*

**SUMMARY:**

Many psychiatrists are not aware of the cultural diversities of their patients from less developed countries like Asian countries. Japan has the highest rate of suicides per year. This lecture will present epidemiology and perspectives of mental health in the East Asian culture based on WHO data and literature. The United States is a melting pot of cultures and cross-cultural Psychiatry should be a focus in treatment of our patients.

No. 107C

**MENTAL DISORDERS: HISPANICS AS PATIENTS AND CLINICIANS**

Humberto Marin, M.D. *UMDNJ, Robert W. Johnson Medical School, Psychiatry Department, 671 Hoes Lane, Room D-321, Piscataway, NJ, 08855-1392*

**SUMMARY:**

Despite the fact that Hispanics are now the largest minority in the United States, there is a paucity of studies on the prevalence and treatment of mental disorders in Hispanic Americans. However, drawing from different sources, it is possible to illustrate multiple issues in this area. The main subjects reviewed in this presentation include: the medical validity of the term Hispanic; some general characteristics of the Hispanic population and its use of medical and mental health services; clinical psychopharmacology in Hispanics; some environmental factors that may affect drug response in Hispanics; and Hispanic attitudes regarding mental health and treatment of mental disorders with medication and psychosocial interventions. Based on the above, the presentation ends with a discussion of the challenges for Latino clinicians treating patients from a different culture, especially minority groups.

No. 107D

**SOUTH ASIAN IMMIGRANT PHYSICIAN: AMERICAN PATIENT, CROSS-CULTURAL TREATMENT**

R. Rao Gogineni, M.D. *Robert Wood Johnson Medical School, Department of Psychiatry, Balacynwyd, PA, 19004*

**SUMMARY:**

South Asian physicians comprise the largest block of international medical graduates in American medicine. South Asian upbringing, religion, caste system, sociocultural values shape the identity of the physicians. Immigration and working through culture shock shapes the establish the necessary bicultural identity of South Asians. This established identity can/often does influence treatment dynamics/process and treatment of American patients. Similar issues/dynamics effect American born physician-South Asian patient dyads. These crosscultural issues can influence establish therapeutic relationship, capacity to empathize, convey mutual respect/value, transference-countertransference, attitudes towards illness etc. So in conclusion enhancement of awareness, effects of crosscultural differences between Southasian immigrant-native born American physician-patient not only prevents any problems but also can enhance the therapeutic outcome.

**REFERENCES:**

1. Mental Health: Culture, Race, and Ethnicity-A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD: US Dept. of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.
2. Journal Article - Davis C: Asia's tigers get the blues. *Nature* 2004; 429:696-698.
3. Marin H, Escobar JL. Special Issues in the Psychopharmacological Management of Hispanic Americans. *Psychopharmacology Bulletin*, Autumn 2001. Vol. 35(4):197-212.
4. Salman Akhtar-Immigration and identity, Jason Aronson inc, 1999. 2. Sudhir Kakar-Identity and adulthood, Oxford university press, 1979.

**SYMPOSIUM 108—BEREAVEMENT AND THE DSM-V****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: 1. demonstrate knowledge of the history of bereavement in

psychiatric diagnosis 2. understand the place of bereavement related depression in the diagnostic system 3. recognize the symptoms of complicated grief and their similarities and differences from other DSM IV syndromes, a and 4. recognize differences in treatment for complicated grief and other DSM IV syndromes

No. 108A

**SHOULD BEREAVEMENT REMAIN AN EXCLUSION FOR MAJOR DEPRESSION?**

Sidney Zisook, M.D. *University of California, San Diego, Department of Psychiatry, 9500 Gillman Drive, La Jolla, CA, 92093-0603*, Kenneth S. Kendler, M.D.

**SUMMARY:**

**Introduction:** Since the publication of DSM-III in 1980, the official position of American Psychiatry has been that the presence of bereavement is an exclusion criterion for the diagnosis of a major depressive episode (MDE). However, the empirical validity of this exclusion has not been well established. As DSM-V is now being planned, it is timely to reexamine the bereavement exclusion, particularly in the light of new evidence since the last reviews of this subject. This presentation evaluates the validity of the bereavement exclusion by examining published data on predictors, course, clinical characteristics, consequences, biology and treatment of depression following bereavement. The central question addressed is: "Is bereavement-related depression (BRD) the same as or different from standard major depression (SMD) on key validators?"

**Methods:** Using the concept of diagnostic validators, this presentation evaluates the relative validity of two competing hypotheses regarding the relationship between BRD and SMD: 1) BRD should not be considered a form of SMD because, using validating criteria, BRD will not resemble SMD; and 2) BRD should be considered a form of SMD because, using validating criteria, BRD resembles SMD.

**Results:** The prevailing evidence more strongly supports Hypothesis 2 than Hypothesis 1.

**Conclusion:** The bereavement exclusion for the diagnosis of MDE may no longer be justified.

No. 108B

**COMPLICATED GRIEF AND DSM-V**

Holly G. Prigerson, Ph.D. *Harvard Medical School, Dana Farber, 44 Binney St, 440 Shields Warren, Boston, MA, 02115*

**SUMMARY:**

This presentation will provide a rationale and overview of the empirical evidence gathered to date on the question "Should Complicated Grief be included as a new disorder in the DSM-V?" Applying the classic framework for determining whether a psychiatric syndrome is a valid, distinct clinical entity proposed by Robins and Guze, we will summarize published (and some in press) data on how the symptoms, risk factors and clinical correlates, course, outcomes and response to treatment distinguish this disorder from those now present in DSM-IV. Benefits (e.g., better understanding and treatment of distressing, impairing grief) and costs (stigmatization) of DSM inclusion will be discussed. Weighing these costs and benefits, we will conclude with a summary of findings and implications for future research and clinical care.

No. 108C

**COMPLICATED GRIEF TREATMENT: IMPLICATIONS FOR THE DSM-V**

M. Katherine Shear, M.D. *University of Pittsburgh, Department of Psychiatry, 3811 O'Hara St., Pittsburgh, PA, 15213*

**SUMMARY:**

**Introduction:** Complicated grief (CG) is a newly defined syndrome that occurs in about 10% of bereaved people. Although some symptoms of CG resemble Major Depression, there are also important differences. Additionally, the etiology and pathogenesis of depression and grief differ in important ways. These differences have treatment implications.

**Methods:** This presentation examines the implications for DSM V of a study comparing the outcome of Interpersonal Psychotherapy (IPT), a well validated treatment for depression, and a specific targeted treatment for Complicated Grief (CGT).

**Results:** CGT performed significantly better than IPT for the treatment of Complicated Grief. Results were better for measures of depression as well as measures of complicated grief.

**Conclusion:** There is a need to distinguish complicated grief from Major Depression in the diagnostic system.

**No. 108D****TREATMENT OF BEREAVEMENT RELATED DEPRESSION: IMPLICATIONS FOR DSM-V**

Paula Hensley, M.D. *University of New Mexico, Department of Psychiatry, New Mexico*

**SUMMARY:**

Bereavement is listed in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV, 1994) as a V code for additional conditions that may be a focus of clinical attention. The criteria recommend not diagnosing depression related to bereavement until two months have passed from the loss but recognize certain symptoms which are not characteristic of a normal grief reaction (including guilt, suicidality, worthlessness, psychomotor retardation, continued severe functional impairment, and persistent hallucinations). This presentation will review the treatment of bereavement depression with a focus on psychopharmacologic therapies. In addition, the presentation will include data from a recently completed study of bereavement-related depression. Patient demographic, clinical, and bereavement characteristics will be described, and outcomes will be presented in the context of case examples. The relevance of this information to considerations related to bereavement in DSM V will be discussed. Active cues, in combination with naturalistic measures of drinking, mood and sleep, offers a screen for potential anti-drinking relapse medications that can be reliably replicated across multiple laboratories, and which offers an alternative to older human laboratory methods involving alcohol administration, that violate the condition of protracted abstinence.

**REFERENCES:**

1. Karam EG: The nosological status of bereavement-related depressions. *British Journal of Psychiatry* 1994; 165: 48-52.
2. Latham AE, Prigerson HG.
3. Shear, Katherine; Frank, Ellen; Houck, Patricia R; Reynolds, Charles F III. Treatment of Complicated Grief: A Randomized Controlled Trial. *JAMA: Journal of the American Medical Association*. Vol 293(21) Jun 2005, 2601-2608.
4. Clayton, P.J., 1990. Bereavement and depression. *J Clin Psychiatry* 51:7 (suppl), 34-38

## **SYMPOSIUM 109—NAMI DOCTORS SOUND OFF**

### **National Alliance for the Mentally Ill**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: recognize common problems that face psychiatrists in advo-

cating for their patients' health.-implement individualized plans to personally advocate for consumers.-discuss the controversies that exist in the areas of formulary restriction, medication adherence, criminalization of the mentally ill and in public sector psychiatry.

**No. 109A****RECOVERY PROGRAMS AND MENTAL ILLNESS**

Edward F. Foulks, M.D. *Tulane University, School of Medicine, 940 Charters Street, New Orleans, LA, 70116*

**SUMMARY:**

**Reflections from the Public Sector: Dilemmas in State Hospitals: Safety Nets in the Community.**

This presentation will focus on the dilemmas of public sector psychiatry and how to provide better safety nets in the community for persons with severe and persistent mental illness. Topics to be covered include issues around seclusion and restraint; development of recovery programs in institutional settings, and bureaucratic challenges of public sector psychiatry. The presenter will provide strategies into how to transform custodial systems into proactive, recovery oriented systems.

**No. 109B****FORMULARY ROULETTE: GETTING BETTER ODDS WITH ACCESS TO TREATMENT**

Kenneth Duckworth M.D. *National Alliance for the Mentally Ill, Colonial Place 3 2107 Wilson Blvd, Suite 300, Arlington, VA, 22201-3042*

**SUMMARY:**

Clinical approaches to Medicaid Access can offer ways to meet the public health pressure of spiraling Medicaid costs by doing no harm. States are conducting access public policy experiments and there is a need to track them to develop best public policy practices as we better try to understand the limits and uses of our evidence base.

**No. 109C****MEDICATION ADHERENCE: PARTNERING WITH YOUR PATIENTS**

Stephen M. Goldfinger, M.D. *SUNY Downstate, 158 Prospect Place, Brooklyn, NY, 11238*

**SUMMARY:**

The clinical trials research literature that clinicians use to make pharmacological treatment decisions suffer from many critical shortcomings, which preclude their generalizability to more routine clinical populations. For example, they generally report study-drug monotherapy in non-substance abusing patients who are able and willing to provide informed consent.

The most profound difference between research subjects and those individuals we treat in the "real world" is that our patients are almost always non-, or partially-compliant. "Pills don't work if our patients don't take them!" Despite wide recognition that nonadherence is the major predictor of treatment failure in the real world, most clinicians receive little, or no, formal training in this area.

This presentation will provide a structure for thinking about predictors of nonadherence. Issues of provider attitudes, patient wishes, and approaches to reconcile differing perspectives will be explored, and possible interventions along multiple dimensions will be provided. Issues from the biological, personal, interpersonal and broader systemic dimensions that impact on adherence will be discussed, with a focus on how to improve our clinical (and pharmacological) practice.

No. 109D  
**THE CHANGING ROLE OF FAMILIES IN  
 PSYCHIATRY**

Anand Pandya, M.D. *NYU School of Medicine, Psychiatry, 215 East 24 Street, #322, New York, NY, 10016*

**SUMMARY:**

Family psychoeducation has been shown to be an effective and important intervention affecting a variety of endpoints in schizophrenia as well as other major mental illnesses. Despite a large body of evidence supporting this treatment modality, there is relatively little recognition and implementation of this by the psychiatric community. Instead, NAMI and its state and local affiliates has filled the gap for such services in many states.

This presentation will review the evidence supporting this intervention and then review the historical and economic factors that have created a culture in psychiatry that shies away from involvement of the family. By understanding these factors that distort our practice, we in the mental health system will be better able to bring our clinical practice in line with the consensus of the research community.

No. 109E  
**RECOVERING PSYCHIATRISTS**

Elizabeth A. Baxter, M.D. *401 Bowling Avenue, Unit 9, Nashville, TN, 37205*

**SUMMARY:**

Criminalization of the Mentally Ill: from public policy to the outpatient office.

Criminalization of persons with mental illness is one of the most pressing public policy issues in advocacy today. The background and scope of the issue will be addressed as well as strategies for advocating on a national and state level. Practical suggestions will be advanced to intervene within the outpatient practice to de-criminalize mental illness and focus on recovery goals. Models for collaboration with police and district attorneys will be discussed. The role, both positive and negative, of mental health courts will be discussed. Examples of state of the art grassroots programs will be provided.

**REFERENCES:**

1. Greider, D., Adams, N.: Making Recovery Real: The Critical Role of Treatment Planning. *Behav Healthcare Tomorrow* 2004;24-29.
2. Duckworth, K. and Hansen, A., Using a Clinical And Evidenced Based Strategy to Promote Access to Psychiatric Medications *Psychiatric Services* October 2003.
3. Weiden, P., Dixon, L., Frances, A., Appelbaum, P., Haas, G.L., Rapkin, B. Neuroleptic Noncompliance in Schizophrenia. In: Tamminga, C., Schulz, C., eds. *Advances in Neuropsychiatry and Psychopharmacology, Volume 1: Schizophrenia Research*. New York: Raven Press; 1991.
4. Alexander, F.G., Selesnick, S.T.: *The History of Psychiatry*. New York, Harper & Row, 1966.
5. Amador, X.A.: *I Am Not Sick and I Do Not Need Help*, Vida Press, 2000.

**SYMPOSIUM 110—INFECTIOUS  
 DISEASES AND PSYCHIATRIC  
 SYMPTOMATOLOGY**

**EDUCATIONAL OBJECTIVES:**

Infectious Diseases and Psychiatric Symptomatology There have long been theories about diseases like obsessive-compulsive disorder and schizophrenia having infectious etiologies. But the contagiousness of infectious disease may play on our psyche in more

ways than directly causing a mental illness. In this symposium we will look at the epidemiology, psychiatric symptoms, short and long term effects, and treatment of five different infectious etiologies: The Canadian SARS epidemic ' a life-threatening disease spread by nature. (Rima Styra) Bioterrorism including the spread of Anthrax through the US Mail system. (Dori Reissman) Human Immunodeficiency Virus ' an international epidemic, which continues to challenge us behaviorally and medically. (Stephen J. Ferrando) Hepatitis C ' an ever-growing and almost silent epidemic with a possible cure that has its own psychiatric implications. (Peter Hauser) Delusional parasitosis ' an infectious disease created within our own minds and spread as folie-à-deux by primitive biological mechanisms. (Annette M. Matthews) Participants should expect to be updated on the latest research on these disorders and to understanding the many different mental health effects of infectious diseases."

No. 110A  
**SARS: PSYCHOLOGICAL CONSEQUENCES FOR  
 THE PATIENT, THE HEALTHCARE WORKER, AND  
 THE GENERAL POPULATION**

Rima Styra, M.D. *University Health Network, Department of Psychiatry, Toronto, ON, M5G 2C4*, Wayne L. Gold, M.D., Marie Louie, M.D., Laura Hawryluck, M.D., Allison McGeer, M.D., Mark Loeb, M.D.

**SUMMARY:**

An outbreak of a life-threatening emerging infectious organism, such as severe acute respiratory syndrome (SARS), affects the population on several levels: the infected individual, the healthcare worker, and the individual requiring quarantine. We will discuss some of the psychological sequelae for these individuals as well as possible implications for future outbreaks.

In Toronto, the psychological sequelae for patients recovered from SARS included symptoms of post-traumatic stress disorder (PTSD), depression and anger even at one year post-discharge. Overall in Toronto, healthcare workers (HCW) comprised 43% of the affected patient population. Psychological symptoms were a significant reason for the patients' inability to return to work at all assessment times up to one year. While healthcare workers were among those diagnosed with SARS, it also had a significant psychological impact on the uninfected HCW. Uninfected HCWs were found to have suffered from the stress of working with patients who were perceived to be a threat not only to themselves, but also to their families. HCW who worked in high-risk units, such as the ICU, SARS unit and the ER experienced higher levels of self-reported distress including symptoms of PTSD. Other factors that were found to mediate the level of distress were perception of risk to self, the impact of the SARS crisis on work life and depressive affect. In future outbreaks, mitigating the psychological distress for healthcare workers who are exposed to high levels of stress during a healthcare crisis like SARS will be essential in order to maintain a viable HCW workforce.

As a transmissible infectious disease, SARS was successfully contained by instituting widespread quarantine measures. However quarantine resulted in psychological distress, which may have had an impact on adherence to infection control measures. Close contact with the effects of SARS, longer duration of isolation and lower socio-economic status were considered to be possible mediators of higher levels of depressive and PTSD symptoms.

The SARS outbreak provided the opportunity to explore mental health issues in the context of an emerging health threat. The resulting far-reaching effects of the SARS outbreak emphasize the importance of outreach efforts to address the mental health of individuals who may be facing different stresses in an outbreak.

No. 110B  
**PSYCHIATRIC ASPECTS OF HIV/AIDS**

Stephen J. Ferrando *New York Presbyterian Hospital, Department of Psychiatry, New York, NY, 10021*

**SUMMARY:**

Since the beginning of the HIV epidemic 25 years ago, psychiatric and substance use disorders have been a central component of the landscape. Psychiatric and substance use disorders are associated with HIV risk behaviors; relapse of these disorders often occur in the context of HIV infection; and HIV and its treatment may have neuropsychiatric manifestations.

This talk will provide an overview of the major psychiatric and neuropsychiatric issues encountered by clinicians in the context of HIV/AIDS. Specific topics will include psychiatric epidemiology; the neuropsychiatric and cognitive manifestations of HIV brain infection; neuropsychiatric side effects of HIV treatments; evidence-based treatments of the major psychiatric disorders in HIV/AIDS; and an overview of relevant psychotropic drug-antiretroviral interactions.

No. 110C  
**HEPATITIS C DISEASE MANAGEMENT PATTERNS IN HIGH-RISK POPULATIONS: TESTING, INFECTION, AND TREATMENT RATES AMONG PATIENTS WITH SERIOUS MENTAL ILLNESS AND SUBSTANCE USE DISORDERS**

Peter Hauser, M.D. *Portland VAMC, P3MHADM, 3710 SW US Veterans Hospital Road, Portland, OR, 97239*

**SUMMARY:**

**Objective:** Previous studies have indicated that individuals with serious mental illness (SMI) and substance use disorders (SUDs) are at increased risk for hepatitis C infection (HCV). Other studies suggest these high-risk groups have been traditionally excluded from interferon (IFN) therapy for HCV, but there are a paucity of studies evaluating how healthcare facilities currently manage HCV, in particular among these populations. Therefore, this study sought to compare hepatitis C (HCV) infection, testing, and treatment rates among patients with a history of severe mental illness (SMI), substance use disorder (SUD), both SMI and SUD (dual diagnosed or DD), or neither SMI nor SUD (Controls). **Methods:** Using a comprehensive medical record database system, information was retrospectively collected on all 293,455 veterans seen over a six-year period in the Northwest Veterans Affairs Healthcare Administration (NWXVHA). **Results:** Of the total sample, 1.6% had SMI, 13.6% had SUD, and 1.4% had both SMI and SUD (DD). HCV testing was administered to 47.5% of SMI patients, 63.0% of SUD patients, 72.3% of DD patients, and 30.1% of Controls. Of those tested, 9.9% of SMI patients, 27.0% of SUD patients, 31.1% of DD patients, and 5.3% of Controls, tested antibody positive for HCV. Of those who tested antibody positive, 11.9% of SMI patients, 10.9% of SUD patients, 10.8% of DD patients, and 13.9% of Controls received interferon (IFN) therapy for HCV. **Conclusions:** Consistent with earlier SMI studies, elevated HCV infection rates were found among SMI and SUD veterans. In fact, veterans with SMI, SUD, and DD, had an approximately two-fold, seven-fold, and eight-fold increase respectively in the odds of HCV infection relative to Controls. Although HCV is frequently not tested among high-risk populations, the NWVHA had appropriately targeted SMI and SUD patients for increased HCV testing. However, large numbers of high-risk veterans had still never been tested. Although some differences reached significance, the magnitude of the differences in treatment rates across high-risk groups was not large, with treatment rates ranging from 10.8% to 13.9%. Nevertheless, individuals with SUD or DD were significantly less likely to receive IFN therapy relative to Controls.

HCV has been identified as a major public health priority, and more disease management studies are needed to evaluate the efficacy of various HCV healthcare practices in a diversity of settings.

No. 110D  
**DELUSIONAL PARASITOSIS: AN INFECTIOUS DISEASE CREATED WITHIN OUR OWN MINDS AND SPREAD AS FOLIE-A-DEUX BY PRIMITIVE BIOLOGICAL MECHANISMS**

Annette M. Matthews, M.D. *Portland VAMC, Department of Psychiatry, 3710 SW Veterans Hospital Road, Portland, OR, 97202*

**SUMMARY:**

Delusional parasitosis is a fixed false belief of a parasitic infestation that can cause significant social and occupational dysfunction and medical comorbidity. The disorder may start as a self-perceived invisible infestation and evolve into visual hallucinations of bugs. Patients with delusional parasitosis usually believe their skin is infested; some believe their internal organs, gums, or a combination of skin and internal organs are infested.

Convinced of their infestation, patients consult multiple providers including dermatologists, gastroenterologists, and ophthalmologists in search of the "right" treatment. These patients undergo multiple tests or procedures and try to disinfest themselves by repeated application of prescription creams and lotions, leading to chemical dermatitis. Patients often try to prove they are infested by bringing skin, dirt, or toilet tissue samples to doctors, which is known as the "matchbox sign." They also can appear repeatedly at their veterinarians in attempt to rid their pets of pests.

Patients, however, do not believe the disorder is psychiatric and resist seeking psychiatric care when a provider suggests that it is. Many times a primary care physician or dermatologist calls on a psychiatrist as a consultant. Delusional parasitosis is most often found in socially isolated women over age 40 with average or higher intelligence. Prevalence is not known to vary with socioeconomic, occupational, or racial backgrounds.

Delusional parasitosis has been associated with: use of cocaine, amphetamines, corticosteroids, or the monoamine oxidase inhibitor phenelzine and numerous medical conditions, including multiple sclerosis, renal disease, and anemia. In some cases, cognitive impairment from a medical condition or a mental condition like dementia, depression fosters the delusion.

In this part of the symposium, I will discuss the diagnosis, treatment, and unique symptomatology of this most fascinating "infectious disease" disorder.

**REFERENCES:**

1. Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, and Styr R. SARS control and psychological effects of quarantine, Toronto, Canada. *Emerg Infect Dis*, 10(7):1206-12. 2004.
2. Ferrando SJ, Wapenyi K: Psychopharmacological treatment of patients with HIV and AIDS. *Psychiatric Quarterly* 2002;73:33-49.
3. Hauser P, Loftis J.M., Dieperink E., Garcia-Tsao G., Rigsby M., Willenbring M., and the Veteran Health Administration Hepatitis C Resource Center Program. Depression and Substance Use Disorders in Chronic Hepatitis C: Implications of New Guideline.
4. Matthews AM, Hauser P. Cases that test your skills: A creepy-crawly disorder. *Current Psychiatry*, 2005(4):88-93.



## SYMPOSIUM 111—USING TECHNOLOGY TO IMPROVE PATIENT CARE

### American Association for Technology in Psychiatry

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize how technology can improve patient care outcomes and reduce costs; utilize PDA databases to assist in prescribing decisions; safeguard patient confidentiality when using new technologies

#### No. 111A PERSONAL DIGITAL ASSISTANTS IN PSYCHIATRIC CARE

John Luo, M.D. *UCLA Semel Institute for Neuroscience and Human Behavior, Psychiatry, 760 Westwood Plaza, mailcode 175919, Los Angeles, CA, 90095*

#### SUMMARY:

At the conclusion of this presentation, the participant should be able to utilize handheld computer resources to assist in patient care. Participants will learn to critically evaluate the various tools such as electronic medical records, mobile text references such as DSM-IV, drug information and drug interaction software, evidence based guidelines, and electronic prescribing and determine how they are relevant to their practice in improving access to information, improving quality of patient care, and decreasing medical errors.

#### No. 111B QUALITY AND COST IMPACT OF PDA USE IN PSYCHIATRY IN FLORIDA MEDICAID

Naakesh A. Dewan, M.D. *Center for Mental Healthcare Improvement, 2519 McMullen Booth Road, Suite 510-255, Clearwater, FL, 33761*

#### SUMMARY:

The use of point of care technologies is growing in psychiatry. At this time many academic programs and private practice clinicians are using PDA technology for prescribing and clinical decision support. This presentation will review the use of PDA technology in the context of a quality enhancement and cost containment program in Medicaid Populations in the state of Florida. Results of this program show that it can save dollars and enhance quality of care. This is the first program to show that investment in technology in the context of a multi-faceted quality enhancement program results in millions of dollars of cost savings, even when accounting for initial investments in technology.

#### No. 111C INTERNET RESOURCES TO ASSIST IN CLINICAL DECISION MAKING

Robert S. Kennedy, M.A. *Innovative Medical Education / Medical College of Wisconsin, Psychiatry, PO Box 155, City Island, NY, 10464*

#### SUMMARY:

The Internet can function as a valuable resource for clinicians. Complex and sophisticated information can be easily available to assist the busy practitioner in clinical decision making through access

to practice guidelines, clinical consensus statements, treatment algorithms, evidenced-based reviews of therapeutic interventions as well as virtually every important journal or professional publication. Some of these resources are freely available while others are via subscription. There are also a number of text books available online. Many screening and assessment tools and other resources are accessible for clinicians to use with their patients or for clinicians to recommend to patients to download and complete.

Having such an array of learning and practice tools available at the clinician's desktop is changing the practice of psychiatry and medicine. The result is easier and faster access to information, reduced cost and improved patient care.

#### No. 111D ELECTRONIC COMMUNICATION WITH PATIENTS

Britton A. Arey, M.D. *UCLA Semel Institute for Neuroscience and Human Behavior, Psychiatry, 760 Westwood Plaza, Los Angeles, CA, 90095*

#### SUMMARY:

At the end of the presentation, participants should be able to recognize how technology can improve patient care outcomes and reduce costs; utilize PDA databases to assist in prescribing decisions; safeguard patient confidentiality when using new technologies

#### REFERENCES:

1. Luo J. *fPortable Computing in Psychiatry*. Canadian Journal of Psychiatry. 2004; 49(1): 24-30.
2. Dewan, NA., Lorenzi, N., Riley, R., Bhattacharya., Eds *Behavioral Health Care Informatics*, Springer Verlag, 2002.
3. Kennedy R. *Physicians and the Internet: Current Status and Future Directions. Relevance of Computers and Technology in Psychiatry. Primary Psychiatry* 2002; 9(9): 43-46.
4. Lu YC, Xiao Y, Sears A, Jacko JA: A review and a framework of handheld computer adoption in healthcare. *Int J Med Inform.* 2005 Jun;74(5):409-22. Epub 2005 Apr 12.

## SYMPOSIUM 112—NEUROFEEDBACK ADVANCES IN ADHD: DOES THE RESEARCH VALIDATE CLINICAL USE?

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to evaluate the reliability of research data into clinical application of neurofeedback in Attention Spectrum Disorders

#### No. 112A PROGRESS IN EFFICACY STUDIES OF EEG BIOFEEDBACK FOR ADHD

Roger J. deBeus, Ph.D. *Eastern Virginia Medical School, Psychiatry & Behavioral Sciences, 103 Brassie Drive, Yorktown, VA, 23693*

#### SUMMARY:

According to the proponents, electroencephalographic (EEG) biofeedback has been shown to be effective in minimizing the cardinal symptoms of Attention-Deficit/ Hyperactivity Disorder (ADHD) in children (Lubar, Swartwood, Swartwood, & O'Donnell, 1995; Monastera, Monastera, & George, 2002). However, almost all of published research has had one or more methodological flaws: a lack of adequate controls including placebo, failure to control for treatment bias, confounding of several different treatments, lack of diagnostic criteria, absence of blindness of the evaluators to the treatment received by the cases, practice effects with the measures being used

to evaluate the ADHD children, and non-randomized assignment of cases to treatment and no-treatment (or placebo) groups (Barkley, 1992; Baydala & Wikman, 2001; Loo & Barkley, 2005).

Recently completed studies with ADHD children address these methodological issues. The first study was based on a randomized double-blind placebo-controlled paradigm. The second study utilized functional Magnetic Resonance Imaging (fMRI) as a pre and post measure after an EEG biofeedback intervention. This presentation will analyze the methodological trends of efficacy studies of EEG biofeedback for ADHD.

## REFERENCES

1. Barkley RA: Is EEG biofeedback treatment effective for ADHD children? Proceed with much caution. Attention Deficit Disorder Advocacy Group newsletter 1992.
2. Baydala L & Wikman E: The efficacy of neurofeedback in the management of children with attention deficit/hyperactivity disorder. *Paediatric Child Health* 2001; 6(7): 451-455.
3. Loo SK & Barkley RA: Clinical Utility of EEG in Attention Deficit Hyperactivity Disorder.
4. *Applied Neuropsychology* 2005; 12 (2): 64-76.
5. Lubar JF, Swartwood MO, Swartwood JN & O'Donnell PH: Evaluation of the effectiveness of EEG neurofeedback training for ADHD in a clinical setting as measured by changes in T.O.V.A. scores, behavioural ratings, and WISC-R performance. *Biofeedback and Self Regulation* 1995; 20: 83-99.
6. Monastra VJ, Monastra DM & George S: The effects of stimulant therapy, EEG biofeedback and parenting style on the primary symptoms of attention deficit/hyperactivity disorder. *Applied Psychophysiology and Biofeedback* 2002; 27(4): 231-249.

## No. 112B

### THE SCIENTIFIC FOUNDATION OF EEG BIOFEEDBACK AS AN INTERVENTION FOR ADHD

Laurence M. Hirshberg, Ph.D. *Brown University / The NeuroDevelopment Center, Psychiatry and Human Behavior, 260 West Exchange St, Suite 302, Providence, RI, 02903*

#### SUMMARY:

EEG research has shown clear indicators of diminished activation in ADHD samples in the same cortical areas observed with other functional neuroimaging techniques. Multiple QEEG studies have shown high sensitivity and specificity in discriminating ADHD from normal, LD, and other disorders. This evidence confirms that the EEG is an accurate index of the brain dysfunction involved in ADHD.

The ability to alter brain function through real time feedback has also been confirmed by recent neuroscience. Brain-computer interface research has established that it is possible to control cortical activation when given immediate feedback. Research into real time fMRI feedback has shown the ability of subjects to control localized brain activation when given BOLD feedback.

Multiple case series and controlled-trial studies, including double-blind, placebo-controlled, sham treatment research, have shown that EEG biofeedback results in statistically significant improvements in well validated measures of attention, impulsivity, and hyperactivity, including parent and teacher report measures and computerized continuous performance tests. This research also documents predicted positive changes in several neurometrics, including the EEG and evoked potentials, and normalization of the fMRI in ADHD subjects. Similar improvements have been documented in normal subjects. In addition, a strong linear relationship has been found between the degree of learning achieved through feedback and improvement in behavioral measures of ADHD and ERP's, documenting the specificity of the effect.

## No. 112C

### THE INTERACTION BETWEEN NEUROFEEDBACK TRAINING AND MEDICATION IN THE TREATMENT OF ADHD: FOUR CASE ILLUSTRATIONS

David A. Mitnick, M.D. *Weill Medical College of Cornell, Psychiatry, 6 Forest Avenue, Paramus, NJ, 07652*

#### SUMMARY:

Neurofeedback (EEG Biofeedback) training is emerging as an effective tool in the treatment of individuals with Attention Deficit Hyperactivity Disorder (ADHD). In addition to the presentation of existing research data on this topic, it is important to present representative clinical vignettes to illustrate the ways in which neurofeedback training is being used effectively with individual patients. This presentation will provide four case histories in which neurofeedback and/or medication were employed in the treatment of ADHD. Each case will highlight a different role that neurofeedback can play in the treatment of this disorder. One case will describe a naïve patient treated with neurofeedback training; another case will describe a medication-responsive patient treated with neurofeedback as a means of reducing/eliminating the need for medication; a third case will describe a patient who has had significant side effects on medications who is undergoing neurofeedback training; the last case will describe a patient with a partial response to medication using neurofeedback training to augment the medication effect

#### REFERENCES:

1. Gruzeliier J, Egner T: Critical validation studies of neurofeedback. *Child Adolesc Psychiatric Clinics N Am* 14 2005; 83-104.
2. Monastra, V: Electroencephalographic Feedback (Neurotherapy) as a Treatment for Attention Deficit Hyperactivity Disorder: Rationale and Empirical Foundation. *Child Adolesc Psychiatric Clin N Am* 14 2005; 55-82.
3. Monastra VJ: Electroencephalographic biofeedback (neurotherapy) as a treatment for attention deficit hyperactivity disorder: rationale and empirical foundation. *Child Adolesc Psychiatric Clin N Am* 2005; 14: 55-82.

## SYMPOSIUM 113—SLEEP DEPRIVATION: THEORETICAL AND PRACTICAL IMPLICATIONS

### EDUCATIONAL OBJECTIVES:

To recognize the health consequences, biology, and diagnostic issues associated with short- and long-term sleep loss and prolonged wakefulness.

## No. 113A

### SLEEP DEPRIVATION: OVERVIEW OF IMPLICATIONS FOR MENTAL HEALTH PROFESSIONALS

Thomas W. Uhde MD *Penn State University, Psychiatry & Penn State Neurosc Inst, Hershey, PA, 17036*

#### SUMMARY:

The purpose of this symposium is to overview the differential diagnosis of sleep deprivation in relation to neuropsychiatric syndromes and to provide an update of both possible limited therapeutic as well as negative, but markedly under-appreciated, public health consequences of sleep deprivation and prolonged wakefulness. Theoretical implications for the role of chronic, intermittent sleep deprivation in the pathophysiology of anxiety disorders will be outlined and framed within the context of the symposium. This paper serves as an introduction to the subsequent papers, which present more

comprehensive reviews and original data on the association between sleep deprivation and the following conditions or situations: primary and secondary insomnia, major depression, anxiety and PTSD, and motor vehicle accidents.

**No. 113B**  
**THE EFFECTS OF SLEEP DEPRIVATION ON STRESS AND IMMUNE SYSTEMS**

Alexandros Vgontzas MD *Penn State University, Psychiatry & Sleep Res & Treatment Ctr, 500 University Drive, H073, Hershey, PA, 17033-0850*

**SUMMARY:**

The behavioral effects of sleep deprivation have been the focus of sleep research for over 40 years. However, the effects of sleep loss on health have received attention only recently. We have studied the effects of total or partial sleep loss in a large number of young, healthy men and women using behavioral, sleep EEG and performance measures, and 24-hour serial blood sampling for the assessment of various hormones, including stress hormones and pro-inflammatory cytokines, i.e., IL-6 and TNF $\alpha$ . Our results have consistently demonstrated that total or even modest sleep loss, i.e., reduction of sleep by 2 hours for one week, is associated with elevation of pro-inflammatory cytokines, particularly IL-6, that have been proposed as molecules mediating sleepiness and fatigue. Sleep loss is not associated with elevation of cortisol, the end-product of the hypothalamic-pituitary-adrenal (HPA) axis while its levels appear to be reduced during the recovery sleep. In these experiments, alertness and performance measured with objective tests (Multiple Sleep Latency Test and Performance Vigilance Test) were significantly impaired, even when sleep was curtailed only for two hours per night for one week. Furthermore, a 2-hour mid-afternoon nap restored, to a significant degree, alertness as well as cortisol and IL-6 levels in the post-nap period. Collectively, these results suggest: (1) adequate sleep is necessary not only for CNS functions but also for health and longevity; (2) even a modest sleep loss has adverse effects on a subject's health and well-being, challenging the division of sleep into "core" and "optional"; (3) sleep deprivation is associated with a down-regulation of the HPA axis activity, which may explain its short-term antidepressant effect; and (4) although sleep loss does not increase cortisol, a stress hormone, its adverse effects on alertness, performance, inflammatory markers, and blood glucose regulation indicate that sleep loss is "stress" for both the mind and body.

**No. 113C**  
**ANTIDEPRESSANT EFFECTS OF SLEEP DEPRIVATION**

Robert M. Post, M.D. *NIMH/NIH, Biological Psychiatry, 10 Center Drive MSC 1272, Bethesda, MD, 20892-1272*

**SUMMARY:**

One night of total sleep deprivation (SD) paradoxically results in marked antidepressant effects in patients with severe unipolar and bipolar depression. Without the coverage of lithium or other antidepressant manipulations the majority of patients will relapse after one night of recovery sleep, however. Ways of maintaining the clinical improvement will be discussed and potential mechanism of the SD effect will be presented. Increases in plasma thyroid stimulation hormone (TSH) often correlate with the degree of antidepressant response suggesting that the degree of release of thyroid releasing hormone (TRH) by the lack of sleep is involved. Since TRH is a putative endogenous antidepressant compound, it is postulated that release of such factors by SD could account for its therapeutic effects in depression.

**No. 113D**  
**SLEEP DEPRIVATION AND PTSD**

Bernadette M. Cortese, M.D. *Penn State University, Psychiatry, 500 University Drive, H073, PO Box 850, Hershey, PA, 17033*

**SUMMARY:**

Sleep disturbances including sleep onset and maintenance difficulties are commonly reported following exposure to a traumatic event, a finding that has been generally attributed to PTSD-associated heightened arousal. Although it is a widespread belief that sleep disturbances improve with successful treatment of PTSD, sleep disturbances as purely a secondary symptom of PTSD have not been empirically supported. Another possible relationship between sleep disturbances and PTSD might exist in which sleep disturbances, as a primary mechanism, could contribute to the development of PTSD after a traumatic event. We are now beginning to examine the relationship between sleep deprivation and the development of PTSD with a retrospective analysis of sleep habits prior and subsequent to a traumatic event such as a motor vehicle accident. This study, along with other prospective studies of PTSD, could reveal new insight into the relationship between sleep and PTSD.

**REFERENCES:**

1. Fletcher KE et al. Effects of work hour reduction on residents' lives: a systematic review. *JAMA* 294: 1088-1100, 2005.
2. See Reference provided by the other Co-Chair, Dr. Uhde.
3. Vgontzas AN, Zoumakis E, Bixler EO, Lin HM, Follett H, Kales A, Chrousos GP. Adverse effects of modest sleep restriction on sleepiness, performance, and inflammatory cytokines. *Journal of Clinical Endocrinology and Metabolism* 2004; 89(5):2119-2126.
4. Roy-Byrne PP, Uhde TW, Post RM: Antidepressant effects of one night's sleep deprivation: Clinical and theoretical implications. In *Neurobiology of Mood Disorders*, edited by Post RM and Ballenger JC, Baltimore, Williams & Wilkins, 1984, pp817-835.
5. Harvey AG, Jones C, Schmidt DA: Sleep and posttraumatic stress disorder: a review. *Clin Psychol Rev.* 2003;23:377-407.

**SYMPOSIUM 114—INTERNATIONAL PERSPECTIVE ON QUALITY IMPROVEMENT INITIATIVES**  
**World Psychiatric Association**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium the participant should be able to: 1) recognize several quality improvement initiatives and principals useful in the evaluation of such initiatives. 2) demonstrate an understanding of the role of practice guidelines in the delivery of behavioral health services and recognize issues that can influence malpractice actions. 3) demonstrate an understanding of suicide prevention initiatives specifically as represented by the Icelandic project.

**No. 114A**  
**INTERNATIONAL ISSUES OF QUALITY ASSURANCE IN MENTAL HEALTH**

Julio E. Arboleda-Florez *Providence Continuing Care Center, Mental Health Services, 752 King Street West, Room 1077, Kingston, ON, K7L 4X3*

**SUMMARY:**

This paper starts with a review of the essential elements of Practice Guidelines, Accountability concepts and the essential components of Performance Appraisals as applied to mental health systems and

uses these concepts as building blocks applied to Quality Assurance in these systems at an international scale. Except from some countries, and through the efforts of the World Health Organization, mental health systems are experiencing a major overhaul worldwide. Changes include from the drafting of mental health legislation and development of new mental health policies to the redesigning of mental health systems and the movement of delivery systems from old institutionally based structures to new community models of care. As the excitement of change takes over, and from hindsight experience of neglect and lack of control on programs, budgetary allocations and their utilization, it is important to remind policy makers and clinicians that without clear guidelines for good clinical practice and accountability and an constant review of quality through well developed quality assurance mechanisms, rot will develop again regardless of good intentions and well designed legislation and plans. The paper concludes with recommendations on how to build Quality Assurance blocks into mental health policy and programs.

**No. 114B**  
**QUALITY MANAGEMENT IN PSYCHIATRY: A TASK FOR THE FUTURE**

Wolfgang Gaebel, Prof. Dr. *Rheinische Kliniken, Heinrich-Heine University, Department of Psychiatry, Bergische Landstrasse 2, Duesseldorf, D-40629, Germany*

**SUMMARY:**

Corresponding to more rigorous cost-benefit control in western health care systems, the medical profession has to legitimize their performance by providing efficacious, effective and efficient care.

Quality Management should address medical quality, patient and staff satisfaction, and economic quality as well (Gaebel 1997). Targets of Quality Management are to be chosen according to instrumental categories such as structure, process, and outcome. In Europe, the customer-oriented EFQM (European Foundation of Quality Management) model has become most popular. Evidence based psychiatry should be the cornerstone of medical quality, to be translated into practice guidelines, disseminated and implemented into clinical practice.

Examples from research and practice in Germany will be presented.

**No. 114C**  
**RECENT ADVANCES IN THE DEVELOPMENT AND IMPLEMENTATION OF PRACTICE GUIDELINES**

Jack S. McIntyre, M.D. *Unity Health System, Department of Psychiatry, 2000 South Winton Road, Bldg. 4 Suite 303, Rochester, NY, 14618*

**SUMMARY:**

Over the last two decades there has been an explosion in the development of practice guidelines. Some countries have developed mechanism for the preparation and dissemination of guidelines as well as periodic revisions. In the United States the practice guideline project of the American Psychiatric Association has published fourteen guidelines and several more are currently being developed. A number of derivative products have also been developed that have aided in the dissemination and use of the guidelines by psychiatrists. A variety of strategies have been implemented to incorporate the guidelines into educational programs. These developments will be reviewed. Data will be presented from a study of guidelines in 23 countries as measured across several domains. Major challenges in the further development and use of guidelines will be reviewed.

**No. 114D**  
**MALPRACTICE LITIGATORS AND PRACTICE GUIDELINES**

J. Richard Ciccone *Strong Memorial Hosp, Rochester, NY, 14642-0001*

**SUMMARY:**

The development of practice guidelines has been heralded as providing psychiatrists with recommendations in assessing and treating patients that are based on available evidence and clinical consensus. The introduction to the practice guidelines cautions that the judgment about the diagnosis and treatment of a patient ultimately resides with the treating psychiatrist in light of the clinical data and the diagnostic and treatment options available; however, clinicians have been concerned that there is significant potential for misuse of the practice guidelines in the legal arena, specifically in malpractice suits. The purpose of this presentation is to review the use of practice guidelines in malpractice actions.

**No. 114E**  
**SUICIDE PREVENTION IN ICELAND: OUTCOME PARAMETERS**

Hogni Oskarsson, M.D. *Therapeia, 12 Sudurgata, Reykjavik 101, 101, Iceland*, S. P. Palsson, O. Gudmundson, W. Nordfjord, A. Ingthorsdottir, S. Bjarnadottir, S. Gudmundsson

**SUMMARY:**

Introduction: Suicide is an endpoint of a complex process involving psychiatric, social and familial factors. A prevention campaign (IAAD) to decrease the rate of suicides began in 2002 and had gained full force by mid-2003. The main motive was the increased male suicide rate in Iceland through the last century.

Method: IAAD provides nationwide workshops for primary health care and community multipliers. It provides high-risk groups with education and better access to emergency services; and runs an awareness campaigns for the general public. Outcome evaluation assesses changes in suicide rates and suicide attempts, antidepressant prescription patterns and public attitude towards depression.

Results: The first wave of workshops is completed. Participant rating was high, and remained so 6-12 months later. During the past three years the suicide rate has decreased by almost 30% ( $P < 0.015$ ) as compared with the three previous years, calculated as a preventable fraction or increase. The decrease has been highest in males, particularly in those 24 years and younger. Assessment of changes in suicide attempts are not available yet. Antidepressant prescription increased in this period, but this may be a continuation of a long-term trend.

Discussion: The rate of suicides has decreased significantly during the three years in which the campaign has been operating. It is debatable whether the decrease is real, and if so, whether it can be attributed to better diagnosis and treatment, increased public awareness and increased support for the ill, improved social conditions, or to some other unforeseen factors.

**REFERENCES:**

1. To be provided.
2. Gaebel W (1997) Quality assurance in psychiatry: concept and methods. *Eur Psychiatry* 12 (suppl 2): 79s-87s.
3. To be provided.
4. Journal Article 'Hirshfeld EB: Should Practice Parameters be the standard of Care in Malpractice Litigation. *JAMA* 1991; 266 #20; pp 2886-2891.
5. Rutz W, von Knorring L, Walinder J: Long-term effects of an educational program for general practitioners given by the Swedish Committee for the Prevention and Treatment of Depression. *Acta Psychiatrica Scandinavica* 1992; 85, 83-88.

**SYMPOSIUM 115—ARMED AND DANGEROUS: IS YOUR PATIENT SAFE TO RETURN TO WORK?  
APA Corresponding Committee on Psychiatry in the Workplace**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: 1) Increase familiarity with factors involved in workplace safety. 2) Discuss workers' psychiatric conditions likely to compromise safe workplace behaviors. 3) Develop skills in assessing fitness for "safe" duty and making appropriate workplace recommendations to enhance safety.

**No. 115A  
WORKPLACE SAFETY OVERVIEW**

Marie-Claude Rigaud, M.D. *Loyola University Medical Center, Chicago, Department of Psychiatry, P.O. Box 2816, Aurora, IL, 60507*

**SUMMARY:**

Workplace safety is a multidimensional concept, encompassing direct as well as indirect environmental, individual, and group conditions. At the individual level, behavioral safety involves individual workers' ability to perform their job in a safe manner, without intentionally or unintentionally hurting themselves or others. The Americans with Disabilities Act addresses issues of Direct Threat. The National Institute of Occupational Safety and Health (NIOSH) has studied issues related to workplace violence and its prevention. Violence Prevention activities are now routine for Human Resource Departments and schools, with the development and implementation of Zero Tolerance Policies. As treaters or independent examiners, psychiatrists have a major role in identifying and managing individual workers' factors and conditions. That role requires psychiatrists to be aware of and assess workers' conditions and behaviors affecting safety and to issue recommendations for job accommodations or other dispositions as indicated.

The concept of safety will be defined as it relates to the field of psychiatry and general issues concerning workplace safety will be discussed. A presentation and discussion of clinical aspects of workers' mental/psychological conditions which can alter safe workplace behavior will follow. This presentation will conclude with procedures for clinical evaluation of fitness for (safe) duty and a discussion of recommendations beneficial to individual workers and the workplace.

**No. 115B  
PHYSICIAN HEAL YOURSELF: THE IMPAIRED PHYSICIAN**

Marilyn Price, M.D. *Brown University, Psychiatry and Human Behavior, Butler Hospital 345 Blackstone Blvd, Providence, RI, 02906*

**SUMMARY:**

The AMA defines an impaired physician as one who is "unable to practice medicine with reasonable skill and safety because of physical or mental illness, including deterioration through the aging process or loss of motor skill, or excessive use or abuse of drugs including alcohol." Inherent in this definition is a recognition that physician impairment affects not only the physician and his/her family but may also impact on patient safety and lead to patient harm. Early identification and referral of an impaired physician for assessment and treatment is essential in preventing the effectiveness of the medical care provided by the impaired physician from being

compromised. A plethora of agencies have responsibility for the oversight of physician health issues, including hospital based physician health committees, state physician health committees and state licensing boards. Any of these agencies can order a formal independent fitness for duty examination. We will use a case example to illustrate the evaluative process, starting with the detection of the impaired physician. We will discuss the physician assessment and review common recommendations, which may include a monitoring contract and workplace supervision. The implications for the impaired physician will be discussed.

**No. 115C  
THE POLICE PROBLEM, PROBLEM POLICE**

Marcia Scott, M.D. *Mt Auburn Hospital, Psychiatry, 19 Sibley Ct., Cambridge, MA, 02138*

**SUMMARY:**

Police officers are selected based on the Department's perceived need for certain skills and personality characteristics. Most states require psychological clearance for every officer but the criteria for acceptance are both specific and vague. Almost all departments are unionized and officers pursue a prolonged career in a contentious environment. All departments are necessarily hierarchical, rule based systems and punitive when rules are broken. All officers depend on maintaining the right to their department licensed weapon and the support of their peers to work at all. At the same time, unlike the military, policing requires great flexibility; minute to minute judgments as well as the day to day ability to deal with both their customers, the public they serve, and also, the hostile the sick and the scared. While police officers suffer the same rates of vulnerability to mental disorders as all workers they bring to illness and treatment these systems issues which they convey with fear, if at all. Treating an officer with a serious or non serious psychiatric issue requires the psychiatrist to assist the officer in managing the system.

**No. 115D  
VULNERABLE POSITIONS/DEFINING ROLES**

Andrea G. Stolar *Case Western Reserve University, Department of Psychiatry, 11100 Euclid Avenue, Cleveland, OH, 44106*

**SUMMARY:**

This segment of the symposium will address the unique safety issues raised by the less obviously risky professional. Psychiatric impairment may present as inappropriate behavior or a tendency toward boundary violations. In sensitive positions, such as counseling, teaching, and childcare, this presents fitness for duty concerns. Being alert to symptoms and signs of worker impairment and knowing when to intervene therapeutically, and / or legally, is an important aspect of the clinical responsibilities in the care of employed patients. Confidentiality and therapeutic issues arise when psychiatric impairment results in workplace problems.

For the psychiatrist whose patients are employed - and at times unemployed due to psychiatric illness - being thrown into the legal arena may be an unexpected result of a benign attempt to advocate for a patient. The distinct roles and responsibilities of the independent evaluator and the treatment provider will be clarified and the pitfalls that one might encounter if placed in the dual agent role will be identified.

**REFERENCES:**

1. Beck JC, Schouten R: Workplace violence and psychiatric practice. *Bulletin of the Menninger Clinic* 1999; 64(1): 36-48.
2. Meyers DJ, Price M: Forensic Psychiatric Assessments of Behaviorally Disruptive Physicians. *Journal of the American Academy of Psychiatry and the Law*, 2006: 34, in press.

3. Rhyons, Lori et al: Employee early warning systems, helping supervisors protect citizens, officers and agencies. *The Police Chief* 2002; November:32-36.
4. Strasburger LH, Gutheil TG, Brodsky A: On wearing two hats: role conflict in serving as both psychotherapist and expert witness. *Am J Psychiatry* 1997; 154:448-456.

## **SYMPOSIUM 116—ONE PATIENT/FOUR MINDS: INTEGRATED TREATMENT FOR MDD**

### **EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to: 1) recognize the scientific and clinical support for the application of an integrated treatment approach to Major Depressive Disorder and 2) use some of the tools available to select and tailor multimodal treatment for each patient.

### **No. 116A MIND ONE: NEUROBIOLOGICAL PERSPECTIVE**

Guylain Bouchard, M.D. *CHUQ-CHUL, Department of Psychiatry, 2705 boul Laurier, Ste-Foy, PQ, G1V 4G2, Canada*

#### **SUMMARY:**

The explanation of psychiatric disorders has aroused interest from the beginning of the history of medicine. Paradoxically, psychiatry has emerged from the inability of the science of neurology to explain mental illness.

In the last 10 to 15 years, we have seen a spectacular shift in psychiatry towards neurobiology. The multitude of biological markers associated to depression and others psychiatric disorders was initially confusing. Newer models far more sophisticated have now emerged.

For the clinician, what is important is to better distinguish between different disorders and to predict precisely the evolution of disease with treatment. The bridge between neurobiological models and clinical reality is still somewhat difficult to achieve. We will present video clips that show a neurobiological vision of depression and its treatment. We propose a look into this interface with the purpose of describing neurobiological models that will allow a readily clinical transposition.

### **No. 116B MIND TWO: INTERPERSONAL PSYCHOTHERAPY FOR DEPRESSION**

Simon Patry, M.D. *C.H. Robert-Giffard, Department of Psychiatry, 2601 chemin de la Canardière, Beauport, PQ, G1J 2G3, Canada*

#### **SUMMARY:**

Developed during the 1970's by Drs. Gerald Klerman and Myrna Weissman, IPT is a short-term therapeutic approach with objectives aiming at reducing the symptoms of depression, building self-esteem and developing effective strategies for interpersonal relationships.

The video will outline briefly this approach. The initial phase involves the diagnosis of depression and the identification of an interpersonal context it relates to: grief, interpersonal dispute, role transition or social isolation. Consequently, specific objectives are introduced and pertinent strategies help to remediate the context worked on in the intermediate. The final phase acts as a summary and closure of the therapeutic process.

Studies demonstrate that IPT is directly linked with depression recovery. It is concerned with the "here and now" and as such, the

need of medication is evaluated. Due to its short duration, therapists take on an active and directive role during therapy.

It is in the best interests of all patients suffering from major depressive disorder to have access to the full range of therapeutic means validated by clinical trials like IPT offers.

### **No. 116C MIND THREE: AFRAID TO TAKE MEDICINE? TARGETING THE RATIONAL THINKING**

Nicole Thibodeau, M.D. *CHUQ-CHUL, Department of Psychiatry, 2705 boul Laurier, Sainte-Foy, PQ, G1V 4G2, Canada*

#### **SUMMARY:**

Cognitive-behavioral therapy of depression is nowadays well-recognized and its utilization widespread. In the treatment of depression, it is frequent that the patient is reluctant to take medicine. This can impede his clinical improvement. More than often, the patient has an anxious symptomatology or comorbid anxiety disorder which can worsen his fears towards medication. Others will have biased perceptions that will need information and education. We will show video clips of a patient showing these clinical problematics. Precise and practical cognitive behavioral strategies will be illustrated. We propose an original use of cognitive behavioural therapy applied to resolve clinical impasses related to the use of medication.

### **No. 116D INTEGRATED TREATMENT FOR MDD**

Marie-Josée Filteau, Dr. Med. Sc. *Clinique Marie-Fitzbach, 1085 de la Tour, Quebec City, PQ, G1R 2W8, Canada*

#### **SUMMARY:**

Difficult-to-treat or treatment resistant depression is often conceptualized in terms of repeated failures of pharmacologic agents to improve depressive symptoms. Pharmacotherapy aims at obtaining remission of symptoms from the depressive illness and the eventual comorbid disorders. The different factors that may cause treatment resistance, such as compliance issues, comorbid anxiety disorders and differential diagnosis between unipolar and bipolar depression, will be underlined. The pharmacological treatment strategies, considering the comorbid diagnoses associated with depression, will be revised and applied to the video patient.

### **No. 116E INTEGRATED TREATMENT APPROACH FOR MDD**

Gerard Leblanc, M.D. *CHA (Hopital St-Sacrement), Department of Psychiatry, 1050 chemin Ste-Foy, Quebec, PQ, G1S 4L8, Canada*

#### **SUMMARY:**

The integration of treatment is defined by the use of the best tailored selection of psychotherapeutic and psychopharmacologic tools applicable to this patient, at this time, in this specific context. Seeking individualization that is more than just combining drug and psychotherapy.

Despite the widespread use of this concept in clinical practice (in one form or another), relatively little research has been conducted on it until recently. Studies supporting integrated treatment in Major Depressive Disorders (MDD) will be briefly reviewed with the focus on what could be the core effective tools.

This presentation proposes a theoretical and practical model for the integration of treatment in MDD, based on key concepts: 1) evidence-based psychiatry; 2) the stages of change and the stages of psychotherapy; 3) the type of interventions adapted to the level of patient's functioning, personality styles, focal problem and precipi-

tating/perpetuating stressors; 4) selection of pharmacotherapy tailored to signs and symptoms of presumed neurobiological dysfunction (MDD sub-types, symptoms profile, comorbidity).

The presenter also emphasizes the need for utilization of many therapeutics tools available (inside and outside of the therapeutic meeting) and the utility and complexity of psychotherapeutic and psychopharmacological strategies blending for difficult case.

#### REFERENCES:

1. Sheline YI, Sanghavi M, Mintun MA, Gado M. : Depressive duration but not the age predicts hippocampal volume loss in medically healthy woman with recurrent major depression. *The Journal of Neuroscience* 1999; 19 (12) : 5034-5043.
2. Weissman M., Markowitz J., Klerman G. : *Comprehensive Guide to Interpersonal Psychotherapy*. New-York, Basic Books, 2000.
3. Tasman A, Riba Michelle B, Silk Kenneth R. : *The doctor-patient relationship in pharmacotherapy*. New York, The Guilford Press, 2000.
4. Petersen T, Gordon JA, Kant A, Fava M, Rosenbaum JF, Nierenberg AA: Treatment resistant depression and axis I comorbidity. *Psychol. Med* 2001; 31: 1223-1229.
5. Thase ME. Depression-focused psychotherapies in: *Treatments of Psychiatric Disorders*. Edited by Gabbard GO. Washington, D.C., American Psychiatric Press Inc., Third Edition, Volume 2, 2001, pp 1181-1227.

### **SYMPOSIUM 117—U.S. MILITARY PSYCHIATRY AND THE OPERATION IRAQI FREEDOM: AN UPDATE**

#### EDUCATIONAL OBJECTIVES:

At the end of this symposium, participant will have a U.S. Military's perspective on early pre-and post-deployment screening, referral process, treatment and follow-up of servicemen and women who participate in the Operation Iraqi Freedom.

#### **No. 117A MENTAL HEALTH IMPACT OF COMBAT OPERATIONS IN IRAQ AND AFGHANISTAN: UPDATE AND LESSONS LEARNED**

Charles W. Hoge *Walter Reed Army Institute of Research, Department of Psychiatry & Behavioral Science, Silver Spring, MD, 20910-7500, Carl A. Castro, Ph.D.*

#### SUMMARY:

Over the last three years, a tremendous amount of data have been collected on the mental health impact of combat operations in Iraq and Afghanistan. The principle sources include 1) Walter Reed Army Institute of Research Land Combat Study, involving over 20,000 service members from over nine brigade combat teams, 2) deployment screening programs such as the post-deployment health assessment administered to all service members at re-deployment, and 3) health care utilization data obtained from the Defense Medical Surveillance System. This talk will summarize the salient lessons learned to date from these sources, including prevalence rates of behavioral health problems up to one year after returning from OIF and OEF (e.g. mental disorders, alcohol, aggression, family functioning), impact of deployment length, and barriers to care. Recommendations will be provided to enhance services, and the interface between research and new Department of Defense policy initiatives to support returning service members will be discussed.

#### **No. 117B THE EVOLUTION OF OPERATIONAL MENTAL HEALTH CARE IN THE U.S. NAVY AND MARINE CORPS FROM WWI TO OPERATION IRAQI FREEDOM**

James J. Reeves, M.D. *Naval Medical Center, Carlsbad, CA, 92009*

#### SUMMARY:

The theory behind combat/operational mental health care dates back to the late 1600's. The current provision of mental health services during field operations can be traced to WWI. Since these early experiences, the knowledge and research into the effects of combat on the soldier in the battlefield has guided how militaries have implemented policy and clinical services during times of war. This article will look at the evolution of operational mental health care leading to current programs in the Navy and Marine Corp. Recent evidence and future areas of study will be discussed.

#### **No. 117C OPERATION IRAQI FREEDOM: WALTER REED ARMY MEDICAL CENTER INPATIENT PSYCHIATRY: AN UPDATE**

Theodore S. Nam, M.D. *Walter Reed Army Medical Center, Department of Psychiatry, 10312 Yearling Drive, Washington, DC, 20307-5001*

#### SUMMARY:

Summary: PTSD (Post Traumatic Stress Disorder), the most often inquired and the most frequently diagnosed anxiety disorders at the Inpatient Psychiatry Service, Walter Reed Army Medical Center neither appears to be the most common psychiatric diagnosis nor the group of disorders among the psychiatric casualties evacuated from the Operation Iraqi Freedom. Moreover, less than one-third of the Walter Reed Army Medical Center Inpatient Psychiatric Admissions are from the Operation Iraqi Freedom, emphasizing the importance of maintaining the access to inpatient psychiatric care to other eligible beneficiaries.

#### **No. 117D PSYCHIATRIC INTERVENTION WITH WOUNDED SOLDIERS: A CONSULTATION LIAISON APPROACH**

Harold J. Wain, Ph.D. *Walter Reed Army Medical Center, Department of Psychiatry, 9121 Copenhaver Dr., Potomac, MD, 20854*

#### SUMMARY:

The nature of war create traumatic experiences where both physical and psychological injuries may occur. Many of the physically injured not only endure some of the typical psychiatric sequel of depression, anxiety, fear, anger, hyper vigilance, insomnia, poor concentration, survivor guilt, avoidance of people, places or conversations regarding the traumatic experience, ruminations, nightmares, irritability, but body image disturbances, multiple fears of invasive surgical and medical treatments, sexual concerns and fear of physical incapacity. etc. Definitive Psychiatric diagnoses to include somatoform, Post Traumatic Stress Depression Delirium, Psychoses may also emerge. The vast majority of victims do not wind up with a psychiatric diagnoses. Albeit, if symptoms do emerge they can interfere with the required medical treatment and thus Psychiatric intervention may be required. Some patients are reluctant to see Psychiatry because of the stigma of mental health. In attempts to diminish this perceived stigma and reduce psychiatric responses in soldiers returning from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) the Psychiatry Consultation Liaison Service at Walter Reed

Army Medical Center developed a comprehensive program aimed at meeting these goals; Therapeutic Interventions for the Prevention of Psychiatric Stress Disorders (TIPPS). This program emphasizes routine psychiatric screening of all medically injured soldiers returning from OIF/OEF without a formal consult and empathic exposure to their trauma. Parts of the program entail the development of a therapeutic alliance, empathic exposure to the trauma, and development and reinforcement of their resilience. Other significant components of the intervention include recognizing personality styles and psychological defenses, countertransference and transference issues, normalizing events, cognitive reframing, educating patients, groups, appropriate pharmacology, and utilizing hypnotic and relaxation techniques to facilitate patients learning self control and mastery techniques. In an attempt to decrease the stigmatization the interventions are conducted under the umbrella of Preventive Medical Psychiatry (PMP). Patients and their families are supported throughout the patient's hospitalization and provided with a PMP contact information when they leave should problems arise subsequent to discharge. Follow up data is obtained 30, 90 and 180 days following discharge. To date over 1100 patients have been seen. The positive results of this program, the interaction between all the services at WRAMC and the implication for establishing a model for treatment of physically injured trauma patients will be described.

**No. 117E**  
**THE CHALLENGES TO PSYCHIATRIC LEADERSHIP AT A MILITARY MEDICAL CENTER DURING WARTIME**

Stephen J. Cozza, M.D. *Walter Reed Army Medical Center, Department of Psychiatry, 11524 Gauguin Lane, Potomac, MD, 20854*

**SUMMARY:**

The September 11, 2001 Attack on the Pentagon and the combat operations that immediately followed (Operations Enduring Freedom and Iraqi Freedom) required a major shift of clinical, academic, and research focus within the Department of Psychiatry at Walter Reed Army Medical Center (WRAMC). During this presentation, COL Stephen Cozza will describe the unique challenges to leadership that resulted and the steps that were taken to meet those challenges. Specifically, COL Cozza will describe the process of reassessment of departmental intervention goals, the particular focus on at-risk populations, the shift to primary, secondary and tertiary prevention approaches and efforts toward interagency collaboration that were initiated between the WRAMC Department of Psychiatry, other Department of Defense Agencies, other academic programs, Department of Veteran Affairs and professional organizations. Time will be allotted for discussion with audience participants.

**REFERENCES:**

1. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *N Engl J Med* 2004;351:13-22 .
2. Shay, J: *Odysseus in America: Combat Trauma and the Trials of Homecoming.*
3. Stretch, RH: *Follow-Up Studies of Veterans.* In *Textbook of Military Medicine, Part I Warfare, Weaponry, and the Casualty*, Edited by Jones, FD, et. al, Borden Institute, Washington, DC, 1995, pp457-472.
4. Wain HJ, and Jaccard JT. *Psychiatric Intervention With Medical Surgical Patients of War.* In RJ Ursano and A. Norwood (eds). *Emotional Aftermath of the Persian Gulf War.* APA Press, Washington, DC, 1995, 415-442.
5. Hoge CW, Castro CA, Messer SC, et al: *Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care.* *N Engl J Med* 2004; 351: 13-22.

**SYMPOSIUM 118—COMPLEMENTARY, ALTERNATIVE, AND INTEGRATIVE APPROACHES IN MENTAL HEALTH CARE**

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should be able to understand the evidence base for select non-conventional approaches in mental health care including spirituality and religious beliefs, homeopathy, Ayurveda, and specialized non-conventional treatments addressing women's mental health issues.

**No. 118A**  
**CLASSICAL HOMEOPATHY: AN OVERVIEW FOR PSYCHIATRISTS**

Pamela A. Pappas *Chapel Hill, NC, 27516*

**SUMMARY:**

Patients with mixed medical and psychiatric symptoms have long challenged physicians' best efforts. An artificial conceptual split between "mind" and "body" adds to the difficulty of engaging, treating, and following clinical progress in such patients. Classical homeopathy is a controversial system of medicine founded over 200 years ago by German physician Dr. Samuel Hahnemann, a rarely mentioned pioneer in psychosomatic medicine. Offering comprehensive attention to patients' entire beings, classical homeopathy is also one of the most widely used and rapidly growing systems of alternative and complementary medicine in the world.

This talk explores the basic history and principles of classical homeopathy, especially linking its concepts to current psychosomatic medicine. Participants will learn to differentiate classical homeopathy from other forms of complementary and alternative medicine, including other forms of homeopathy. Some advantages and disadvantages of using homeopathy in treating psychiatric conditions will be described, as well as suggesting how to find competent practitioners. Homeopathic laws of healing may increase understanding of patient progress no matter what treatment is used; these will be discussed. Some published research in classical homeopathy will be mentioned, along with the challenges inherent in developing valid studies to examine this field.

**No. 118B**  
**AYURVEDA: ANCIENT WISDOM FOR MODERN PSYCHIATRY**

Sudha Prathikanti, M.D. *University of California at San Francisco, Department of Psychiatry, 1701 Divisadero, Suite 150, San Francisco, CA, 94143*

**SUMMARY:**

Ayurveda is the millennia-old, indigenous health and healing system of India. The central paradigm in Ayurveda is tridosha theory, which analyzes the unique mind-body constitution of each individual and proposes a corresponding set of nutritional, environmental, and lifestyle factors that promote health and healing for each person. In this presentation, Ayurvedic diagnosis and treatment of psychological distress will be summarized, and scientific evidence supporting Ayurvedic therapies in psychiatry will be reviewed.

**No. 118C**  
**NO EFFECT OF ANONYMOUS DISTANT HEALING ON SURVIVAL TIME FOR PATIENTS WITH GLIOBLASTOMA MULTIFORME**

Andrew J. Freinkel, M.D. *2300 California Street, San Francisco, CA, 94115, Cheryl Koopman, Ph.D.*



**SUMMARY:**

**Background:** Anonymous Distant Healing (ADH) is a type of spiritual treatment that has been recently tested in clinical trials for number of conditions. This particular experimental design has been used so that the effect of distant healing (defined as the effect of a intention as it acts at a distance to positively effect a clinical outcome) can be tested without consideration of a placebo or expectancy effect on the subject. This study is the first to test the efficacy of ADH as an adjunct treatment for a solid tumor; specifically, glioblastoma multiforme (GBM). **Experimental Design:** RCT double-masked. 148 subjects, within 5 weeks of diagnosis of GBM, were recruited from two tertiary care clinics as well as through a website recruitment mechanism. Outcome measure was survival time. **Methods:** After randomization, photographs and some brief (but not identifying) information about the subjects was sent to the healers through the mail. Professional healers, chosen on the basis of years of experience and from a heterogeneous group of healing traditions, were told only to "send positive healing intention" to the persons depicted in the photo. Each subject received a dose of three hours/week for 20 weeks, for a total of 60 hours of ADH. **Results:** Survival time was measured from enrollment date to date of death or date of last follow-up. 110 subjects were known to have died before the date of close of the study, 36 were known to still be alive within a month of that date. Two subjects were excluded from this analysis: 1 patient was lost to follow-up and 1 was discovered to have been misdiagnosed. Survival curves were calculated for each treatment group and for each recruitment source using the Kaplan-Meier method. There was no difference in the survival by treatment group (log-rank test chi-square = 0.38,  $p = 0.54$ ). In a multivariate analysis that included age, gender, smoking and alcohol use (yes or no), POMS total score and recruitment source, only age at diagnosis was a statistically significant predictor of survival (hazard ratio 1.05, 95%CI 1.03 to 1.07,  $p < 0.001$ ). **Conclusions:** Anonymous Distant Healing (ADH) is not an effective adjunctive treatment for patients with GBM. Further, there was no significant difference comparing the survival curves of the clinic-enrolled versus website-enrolled subjects. This might suggest that in some circumstances, website-enrollment may be used to help achieve recruitment goals.

No. 118D

**SELECT INTEGRATIVE MEDICINE TREATMENTS FOR DEPRESSION IN WOMEN**Priti Sinha *University of Arizona, Psychiatry, Tucson, AZ***SUMMARY:**

This presentation focuses on the complementary and alternative medicine (CAM) treatments for depression, specifically for women. In addition, we will focus on how to help clinicians and their female patients make informed decision about treatment options. The presentation provides an overview of depression in women across the reproductive lifespan and discusses select CAM treatment modalities for women with depression. The selected CAM treatments that will be discussed include omega-3 essential fatty acids (n-3 EFA), hypericum perforatum (St. John's Wart), S-adenosyl-methionine (SAM-E), exercise, light therapy, acupuncture and folate. Data and research on the above listed CAM treatment modalities show positive efficacy for the treatment of depression in women. All of the above mentioned treatment modalities deserve further research, especially in regards to treatment of depression in women.

No. 118E

**MEDITATION FOR PSYCHIATRIC DISORDERS: A REVIEW OF THE EVIDENCE**Jeffrey D. Rediger, M.D. *Harvard Medical School, McLean Hospital, 940 Belmont St., Brockton, MA, 02301***SUMMARY:**

Both medicine and managed care companies are becoming more aware of the role that lifestyle options, choices and attitudes play in determining physical, psychological and spiritual health. This growing awareness raises questions about the clinical value that some meditation approaches may have for psychiatric care. The purpose of this presentation is to review all existing evidence-based research to date on meditation as an intervention for diagnosed psychiatric disorders. Several conclusions are tentatively drawn. In regards to generalized anxiety disorder, panic disorder and panic disorder with agoraphobia, some evidence suggests that a group stress reduction intervention based on mindfulness meditation may have efficacy. For Binge Eating Disorder, some evidence suggests modest reductions in anxiety and the number of binges per week. Finally, evidence exists that mindfulness based cognitive therapy (MBCT) may be helpful in the prevention of relapse to major depression when it is provided to patients who have a history of three or more past episodes of depression and are currently in remission. Contradictions to meditation are discussed, clinical guidelines are provided and directions for further research are indicated.

**REFERENCES:**

- Chapter in Book ' Bell IR and Pappas PA: Homeopathy and Psychiatry: Oil and Water, or Potent Mix? In Clinical Manual of Complementary and Alternative Treatments in Mental Health, edited by Lake JH and Spiegel D, Arlington VA, American Psychiatric Pu.
- Mishra LC (Ed). Scientific Basis for Ayurvedic Therapies. Boca Raton: CRC Press, 2004.
- Journal Article: Aviles J et al'' Interecessory Prayer and Cardiovascular Disease Progression. Mayo Clin Proc. 2001 Dec;76(12):1192-8.
- Hibblen JR. Seafood consumption, the DHA content of mothers' milk and prevalence rates of postpartum depression: A cross-national, ecological analysis. J Affect Disord 69(1-3):15-29, 2002.
- Chapter in Book: Rediger JD, Summers, LP: Meditation and Psychiatric Disorders: A Review of the Evidence. In Complementary and Alternative Medicine Approaches, edited by Lake J, New York, American Psychiatric Press, 2005 (in press).

**SYMPOSIUM 119—SUICIDE ON COLLEGE CAMPUSES: PRACTICAL AND ETHICAL ISSUES****EDUCATIONAL OBJECTIVES:**

At the conclusion of this symposium, the participant should know the epidemiology of suicide on college campuses, current approaches to prevention, and the ethical issues that arise in addressing the problem.

No. 119A

**THE EPIDEMIOLOGY OF COLLEGE STUDENT SUICIDE**Morton M. Silverman, M.D. *Education Development Center, Suicide Prevention Resource Center, 4858 S. Dorchester Avenue, Chicago, IL, 60615-2012***SUMMARY:**

Since the 1990s suicides on college campuses have received increased public interest and concern, being the second leading cause of death for this age group. Despite the apparent significance of this cause of death, suicide on campuses remains a very poorly understood phenomenon, due to inconsistent findings derived from anecdotal reports and noncomparable studies. Furthermore, the range of sui-

cidal behaviors (e.g., ideation, threats, gestures, attempts) amongst college students have not been well-documented or studied. Assessment and treatment protocols for suicidal behaviors and campus-wide suicide prevention intervention programs are relatively new and, for the most part, not evaluated.

This presentation aims to present the most recent data on the clinical and empirical knowledge regarding suicidal behaviors on college campuses. The presentation will review risk and protective factors for college student depression and suicide, suicidal ideation, suicide attempts, and other self-injurious behaviors.

**No. 119B  
SCREENING COLLEGE STUDENTS FOR SUICIDE RISK**

Ann P. Haas, Ph.D. *American Foundation for Suicide Prevention, 14 Phillips Drive, Camden, ME, 04843*

**SUMMARY:**

Identifying college students who are at serious risk for suicide is fraught with challenges. These include the low frequency of suicidal behavior relative to the large number of students with depression and other risk factors, the fact that those most in need of help are largely unknown to mental health service providers, and widespread beliefs and attitudes that deter many students from seeking help. Given these challenges, screening programs on college and university campuses must be proactive and engaging, and must address students' barriers to help-seeking.

One such model screening program, developed by the American Foundation for Suicide Prevention, has been pilot tested at two universities from 2002-2005. Through campus e-mail, students are directed to a secure website and invited to complete and submit an online screening questionnaire. Those with significant problems receive a detailed personal response on the website from an experienced clinician. Students may continue to dialogue anonymously with the clinician on the website, providing an opportunity for treatment barriers to be explored and resolved, and for the beginning of a therapeutic relationship to be formed. In all communications, the clinician encourages the students to come in for a face-to-face meeting, and to pursue treatment as needed.

Results indicate that for every 1,000 students invited to participate in the screening, about 80 complete the questionnaire, 20 engage in online dialogues and about 11 enter treatment. Almost all of those who are reached have significant mental health problems, have not previously sought treatment and cite the screening program and particularly the clinician's active interest in them as responsible for their seeking help. Focus group data suggest that the screening project contributes to a campus culture supportive of help-seeking, and has a positive impact among those who do not seek services.

Positive results notwithstanding, campus-based programs that screen students for suicide risk inevitably confront difficult ethical and legal questions, dealing in particular with the possible impact of screening on suicidal students, and the university's liability for students who are identified as having high suicide risk but do not seek services. These and other questions are discussed and possible solutions proposed.

**No. 119C  
THE UNIVERSITY RESPONSE TO SUICIDE PREVENTION AND TREATMENT**

Paul J. Barreira, M.D. *Harvard University, Director, Behavioral Health and Academic Counseling, Harvard University Health Services, 5 Linden St., Cambridge, MA, 02138*

**SUMMARY:**

The number of college students who experience psychiatric symptoms, require behavioral health (or mental health) interventions, or arrive at college with an already diagnosed psychiatric illness has increased dramatically over the last ten years. The observed increase in the number of college students with significant psychiatric problems forces college administrators to confront a number of complicated problems: how to identify students at risk for serious depression and suicidal behavior; how to ensure that students have ready access to mental health services on and/or off campus; and under what circumstances to request or require that students take a medical withdrawal in order to receive necessary treatment. In addition, recent court decisions holding residential staff or college administrators liable for a student suicide are prompting a re-examination of policies regarding colleges' responsibilities for treating students with serious psychiatric illnesses. This presentation will review one college's efforts to respond to these challenges. The presentation will examine what tools are available to identify students who may be at risk for serious depression and suicidal behavior. Next the presentation will examine how a university mental health service organizes mental health programs to provide effective treatment and discusses how to define the limits of treatment in a residential college setting. We will review the use of medical leave for students who are psychiatrically unstable, including the role of the mental health service in advising the college administration about options for individual students and re-evaluating students who return from medical leave. The presentation will describe the mechanisms for building a collaborative relationship between mental health services, students, and the college administration.

**No. 119D  
ETHICAL DILEMMAS OF COLLEGE STUDENT SUICIDE**

Paul S. Appelbaum, M.D. *University of Massachusetts Medical School, Department of Psychiatry, 55 Lake Avenue North, Worcester, MA, 01655*

**SUMMARY:**

Colleges' responses to suicidality are ethically fraught because they often pit paternalism against students' autonomy in situations in which the interests of colleges and of students may not be perfectly aligned. Colleges have a strong interest in preventing suicide on campus, which could conflict with doing what's best for students. Ethical concerns exist both with regard to responding to suicidality and preventing suicide.

In their responses to reports of suicidality, some schools mandate interventions such as mental health evaluations that may stigmatize students. Other colleges require students who threaten or attempt suicide to take a mandatory leave of absence for at least the rest of the semester. This can drive down rates of "on campus" suicide for colleges, but may strip students of their support systems, and ultimately discourage students from talking openly about or seeking help for suicidal impulses. Campus mental health professionals also face conflicts about disclosing information to students' parents, and to administrators who may want to know whether students should be placed on leave or readmitted.

When attempting to prevent suicide, administrators may run into dilemmas of comparable magnitude. Some colleges are reluctant to screen for depression or suicidality for fear that knowing that a student needs help will create a liability risk for the school. Other prevention efforts emphasize campus-wide education and encouragement of reporting depressed and suicidal students to the administration. But if the result of reporting is mandatory assessment with the risk of suspension, the college environment may become one in which open discussion of problems by students is discouraged. More direct means of assisting students to obtain mental health treatment--

providing adequately staffed mental health services and student health insurance with appropriate mental health coverage--are often avoided because colleges are reluctant to assume the added costs.

Most administrators and mental health professionals on campus are doing their best to help depressed and suicidal students, often with inadequate resources. But the ethical issues raised by even the most well-meaning initiatives ought not to be ignored, nor should the real questions about the congruence between the interests of students and those of the colleges.

No. 119E

### **BALANCING PRIVACY AND PROTECTION CONCERNS IN SUICIDAL COLLEGE STUDENTS**

Barbara H. Stanley *Columbia University, Department of Psychiatry, 1051 Riverside Drive, #42, New York, NY, 10024*, Ruth Fischbach, Ph.D.

#### **SUMMARY:**

This presentation will examine the privacy and confidentiality dilemmas that emerge when college students become suicidal and depressed. We will explore the tension between protecting privacy and safeguarding the student from self-harm. Identification of and intervention with suicidal college students poses clinical, ethical and legal challenges for clinicians, administrators, family and peers. Suicide remains a major leading cause of death in young adults. Suicide attempts and non-suicidal self injury, such as superficial cutting and burning, occur at approximately ten times the rate of completed suicide. The college years are a particularly vulnerable period with late adolescents living away from home with minimal supervision for the first time and intense pressures to succeed, to become independent and to find a career path. For students who

experienced psychiatric disorders in early to mid-adolescence, the stress of the college experience can result in a re-emergence or exacerbation of symptoms. For others with a vulnerable predisposition, a psychiatric disorder can emerge. At the same time, college students are legally considered adult and as with other adults, privacy and confidentiality protections are provided. In colleges, FERPA (Family Educational Rights and Privacy Act) protects the privacy of student records and has been broadly interpreted as applying to most college and student interactions. Also, usual privacy protections in the health care arena apply to college students. Thus, when students experience depression or suicide ideation that is judged not to place them at imminent, parents are often not informed. Also, peers are often in the position of knowing that a fellow student is experiencing emotional difficulties but feels that it is important to not breach the students' privacy by informing staff.

#### **REFERENCES:**

1. Silverman MM: Helping College S Helping Students Cope with Suicidal Impulses. In *Assessment, Treatment, and Prevention of Suicidal Behavior*, edited by Yufit RI, Lester D, New York, John Wiley & Sons, Inc., 2005, pp 379-429.
2. Gould M, Marrocco FA, Kleinman M, Thomas JG, Mostkoff K, et al. Evaluating iatrogenic risk of youth suicide screening programs. *JAMA* 2005; 293:1635-1643.
3. Barrios LC, Everett SA, Simon TR, & ND., B. (2000). Suicide prevention among US college students. Association with other injury risk behaviors. *Journal of American College Health.*, 48, 229-233.
4. Pavela G: Therapeutic paternalism and the misuse of mandatory psychiatric withdrawals on campus. *Journal of College and University Law* 1982-3; 9:101-147.
5. Bok, S. *Secrets: On the Ethics of Concealment and Revelation*. New York: Viking Books, 1989.

**MONDAY, MAY 22, 2006**

**WORKSHOPS**

**MEDIA WORKSHOP 1**

**“GO”: A TRIPLE-TAKE IN THE WORLD OF DRUGS**

*Co-Chairpersons: Petros Levounis, M.D., Addiction Institute of New York, 1000 Tenth Avenue, Suite 8C-02, New York, NY, 10019*

*Jose P. Vito, M.D., SUNY at Downstate, Psychiatry, 235 East 57th Street, 16A, New York, NY, 10022*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this workshop, the participant should be able to:

- 1) Recognize biological, psychological, and social dynamics of illegal drug use, and;
- 2) Contrast the self-medication hypothesis with cultural formulations of drug use.

**SUMMARY:**

“Go” (1999, 103 minutes) is a simple story of an ecstasy drug deal in Los Angeles that goes haywire. As the events of a long Christmas Eve unfold, several straight and gay young people search for themselves through the use of chemicals and the use of people. The story is told three times from three different angles, each time bringing out a different psychodynamic struggle that the characters find themselves in. Are the drugs primarily responsible for the psychological fallout and the behaviors that we encounter, or is it the other way around?

In this media presentation, we will explore the complexities of the modern drug world from the interpersonal, cultural, and political perspectives. The self-medication hypothesis, the biological effects of drugs of abuse, and the powerful social determinants of illegal drug use among adolescents and young adults will form the basis of our discussion. The workshop is open to all psychiatrists who would like to explore the interplay of drugs and society from a psychiatric perspective but is particularly targeted towards members in training and early career psychiatrists.

**REFERENCES:**

1. McDowell DM: MDMA, ketamine, GHB, and the fClub Drug\$ scene. In Textbook of Substance Abuse Treatment, 3rd Edition, edited by Galanter M, Kleber HD, Washington, DC, American Psychiatric Publishing, 2004, pp 321-333.
2. Rosenthal NR, Levounis P: Polysubstance use, abuse, and dependence. In Clinical Textbook of Addictive Disorders, 3rd Edition, edited by Frances RJ, Miller SI, Mack AH, New York, The Guilford Press, 2005, pp 245-270.

**MEDIA WORKSHOP 2**

**“DO I LOOK FAT?” EATING DISORDER PATHOLOGY IN GAY MEN**

*Chairperson: Daniel Garza, M.D., Mount Sinai Medical Center, Psychiatry, 1 Columbus Place, #S21G, New York, NY, 10019-8232*

*Presenter: Travis D. Mathews, M.A.*

**EDUCATIONAL OBJECTIVES:**

Educational Objectives:

At the conclusion of this presentation, the participant should:

- Understand the developmental factors that may predispose gay men to manifest disturbances in eating behavior

- Understand how heterosexually and homosexually oriented media influences may negatively impact gay men’s self-esteem and body image.

Understand addiction-oriented perspectives on eating disorders

**SUMMARY:**

Eating disorder pathology is statistically found in higher rates in women than in men. Its manifestation among males are becoming increasingly understood and point to the fact that many males appear to identify as homosexual or bisexual at rates significantly higher than expected from the general population. The increasing recognition of gay men among the eating disturbed contributes to how the etiology of eating disorders is conceptualized and is now reflected in the literature.

From childhood to midlife, the men in this documentary poignantly describe their developmental struggles and body image conflicts. Gay men may be particularly vulnerable to the environmental factors that impact on this disorder. These include society’s increasing objectification of men as sexual objects, the fear of AIDS, the blurring of male and female gender perceptions and roles and, of course, internalized homophobia. Montage footage of archival and present day media depictions of what it means to be a self-actualized male in American society captures the intensity of this unrelenting influence in this intriguing documentary. That these men may also struggle with psychosexual conflicts while contending with other types developmental and familial trauma support the theory that homosexuality is itself a risk factor for the development of eating disorders. The men who tell their stories in this captivating film poignantly capture how gay men may still struggle with self-acceptance, and how far health care providers have yet to go in understanding and treating these disorders.

**REFERENCES:**

1. Williamson, I: Why are Gay Men a High Risk Group for Eating Disturbance? Eur eat Disorders Rev. 1999; 7: 1-4.
2. Carlat, DJ, Camargo, CA, Herzog, DB: Eating Disorders in Males: A Report on 135 Patients. Am J Psychiatry 1997; 154: 1127-32.

**TUESDAY, MAY 23, 2006**

**MEDIA WORKSHOP 3**

**“CRASH”: A PORTRAIT OF MULTICULTURAL AMERICA AT THE FLASHPOINT  
APA Council on Minority Mental Health and Health Disparities**

*Co-Chairpersons: Francis G. Lu, M.D., San Francisco General Hospital, Psychiatry, 1001 Potrero Avenue, Suite 7M, San Francisco, CA, 94110*

*Heather M. Hall, M.D., University of California, San Francisco, Psychiatry, 1001 Potrero Avenue, San Francisco, CA, 94110*

*Presenters: Lilliam Comas-Diaz, Ph.D., Frederick M. Jacobsen, M.D.*

**EDUCATIONAL OBJECTIVES:**

- 1) To understand the stresses related to racial identity which leads to prejudices and biases especially racism
- 2) To understand how these stresses can be seen in the clinical encounter with patients

**SUMMARY:**

“Crash” (2004, 122 min.) is a movie written and directed by Paul Haggis that explores the role of race in everyday day life. Although set in Los Angeles, it is a metaphor for the tensions and stresses of living in multicultural America and even the world at this time. It lays bare some of the most painful aspects of race relations between Whites, Blacks, Asians, Latinos and people from the Middle East

in today's society. Roger Ebert has commented: "One thing that happens, again and again, is that peoples' assumptions prevent them from seeing the actual person standing before them. It shows the way we all leap to conclusions based on race -- yes, all of us, of all races, and however fair-minded we may try to be -- and we pay a price for that. If there is hope in the story, it comes because as the characters crash into one another, they learn things, mostly about themselves. Almost all of them are still alive at the end, and are better people because of what has happened to them. Not happier, not calmer, not even wiser, but better." This film will serve as a stimulus for discussion about these issues as they appear in the clinical encounter with patients.

#### REFERENCES:

1. Sue D: *Overcoming Our Racism*, New York, John Wiley, 2003.
2. Sue D: *Counseling the Culturally Diverse*, New York, John Wiley, 2002.

### WEDNESDAY, MAY 24, 2006

#### MEDIA WORKSHOP 4

#### **I USED. I AM SORRY. CAN I COME BACK? "SISTER HELEN" SAYS: PISS OFF.**

#### **APA Corresponding Committee on Treatment Services for Patients With Addictive Disorders**

*Co-Chairpersons:* Petros Levounis, M.D., *Addiction Institute of New York, 1000 Tenth Avenue, Suite 8C-02, New York, NY, 10019*

*Marjorie E. Waldbaum, M.D., St. Luke's and Roosevelt Hospitals, Department of Psychiatry, 12 Hawk Street, Spring Valley, NY, 10977*

*Presenters:* Moddy H. Kiluvia, M.D., Aditi M. Shrikhande, M.D., Monisha R. Vasa, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participant should be able to: 1) Give patients and their families advise on the use of "tough love," and 2) Understand the confrontation versus motivation argument in addiction treatment.

#### SUMMARY:

"Sister Helen" (2003, 90 minutes) is a documentary film about a recovering alcoholic who becomes a nun and opens a halfway house for recovering addicts in New York City's South Bronx. The film is the winner of the coveted Sundance Film Festival Directing Award and was nominated for an Emmy Award for Outstanding Cultural and Artistic Programming.

Sister Helen uses a no-nonsense, tough love approach to addiction treatment that brings to the surface one of the most difficult dilemmas in addiction psychiatry: confrontation vs. support. While motivational interviewing has contributed tremendously in reformulating this age-old question in our field, the core conflict between "standing tough" versus "giving a second chance" still daunts both professionals and families challenged by addiction. Parents and spouses of patients who suffer from substance use disorders often ask us for advice on how to set limits and most importantly what to do when the limits are broken.

In this media presentation, we will explore the history, advantages, disadvantages, and cultural dynamics of confrontation in the treatment of different populations of patients. Dr. Marjorie Waldbaum, a child and adolescent psychiatrist with additional training and expertise in addiction psychiatry, will discuss confrontation and support in the context of the parent-child relationship. The workshop is open to all psychiatrists who would like to learn more about addiction treatment but is particularly targeted towards members in training and early career psychiatrists.

The workshop is sponsored by the Corresponding Committee on Treatment Services for Patients with Addictive Disorders.

#### REFERENCES:

1. Miller WR, Rollnick S: *Why do people change? In Motivational Interviewing: Preparing People for Change*, 2nd Edition, New York, Guilford, 2002, pp 3-12.
2. De Leon G: *Therapeutic communities. In Textbook of Substance Abuse Treatment*, 3rd Edition, edited by Galanter M, Kleber HD, Washington, DC, American Psychiatric Publishing, 2004, pp 485-501.

#### MEDIA WORKSHOP 5

#### **THE MOVIE "FUN" AS A FRAMEWORK FOR EXPLORING CONDUCT DISORDER IN ADOLESCENT GIRLS**

*Chairperson:* Jessica C. Morgan, M.D., *Dartmouth Hitchcock Medical Center, Child and Adolescent Psychiatry, 120 A Brothers Road, Hartland, VT, 05048*

*Presenters:* Patricia A. Daly, M.D., Erica L. O'Neal, M.D.

#### EDUCATIONAL OBJECTIVES:

1. At the conclusion of this workshop, the participant should be able to identify the presentation of Conduct Disorder in adolescent males and females and identify gender differences in its manifestation.

2. At the conclusion of this workshop, the participant should recognize likely comorbidities of Conduct Disorder and understand adult outcomes of untreated illness.

3. At the conclusion of this workshop, the participant should have an understanding of the complexities surrounding identification, diagnosis and treatment of Conduct Disorder.

#### SUMMARY:

Conduct disorder is not well characterized in adolescent females despite being the second most common psychiatric diagnosis in girls, with prevalence rates ranging between 4% and 9.2% in epidemiological studies of non-clinic-referred youth (Connors, 2004). In fact, there are strong proponents both for and against changing DSM-IV criteria to account for disparity between the sexes. This workshop uses the film "Fun" to examine the dynamics and facets of Conduct Disorder as well as the varying presentations of the illness. "Fun" is an independent film depicting the passionate relationship of two teen-age girls (one with a history of being sexually abused and the other who is clearly manic) who go on a murder spree. Such an exploration is especially pertinent in light of potentially significant gender differences in the manifestation of Conduct Disorder. After viewing the film, participants will have an opportunity to share their initial impressions. This will be followed by a review of the literature on the topic including diagnosis, prevalence, comorbidities, outcome studies and treatment modalities. In addition, participants will be invited to share their own clinical experiences.

#### REFERENCES:

1. Ehrensaft MK: *Interpersonal relationships and sex differences in the development of conduct problems. Clinical Child and Family Psychology Review* 2005; 8: 39-63.
2. Connor DF: *Aggression and Antisocial Behavior in Children and Adolescents*, Guilford Press, 2004.

**MEDIA WORKSHOP 6**  
**“CARTER’S ADDICTION”: SUBSTANCE USE**  
**DISORDERS IN PHYSICIANS**  
**Collaborative Session With the National Institute**  
**on Alcohol Abuse and Alcoholism**

*Chairperson:* Christopher J. Welsh, M.D., *University of Maryland School of Medicine, psychiatry, 22 South Green Street, P-1-H-10 Box 349, Baltimore, MD, 21201*

**EDUCATIONAL OBJECTIVES:**

**Educational Objectives**

1. At the conclusion of this presentation, the participant should be able to better appreciate some of the issues specific to addiction in physicians.

2. At the conclusion of this presentation, the participant should be able to better recognize some of the reasons for difficulty in identification of and intervention with impaired physicians.

3. At the conclusion of this presentation, the participant should be able to better appreciate difficulties of returning to medical practice and monitoring treatment progress in addicted physicians.

**SUMMARY:**

Substance use disorders are common in physicians and other health-care professionals. Most studies show rates equal to those seen in the general population (8-14% lifetime prevalence) with the use of prescription opioids and benzodiazepines higher in physicians than in the general public. The sixth and seventh seasons of the NBC drama *ER* (2000-2001) featured an ongoing story-line depicting Dr. John Carter’s addiction to prescription opioids. This depiction won a PRISM award (from the Entertainment Industries Council and the National Institute on Drug Abuse) for its accurate portrayal of addiction and recovery. During this media workshop, multiple clips from the relevant episodes of *ER* will be shown consecutively in a “feature-length film” manner depicting Dr. Carter’s initiation of substance use, development of substance dependence, treatment and recovery. The video will highlight issues dealing with identification of substance use in health care professionals, intervention by colleagues, physician-specific treatment, return to medical practice, monitoring of progress in recovery, and relapse. Participants in the workshop will discuss the portrayal of these various topics in the video. They will also be encouraged to discuss their experiences of working with physicians suffering from substance use disorders. The impact of fictional media portrayals of physician impairment on the general public’s perception of the field of medicine will also be discussed.

**REFERENCES:**

1. AMA Council on Mental Health. The Sick Physician: Impairment by psychiatric disorders including alcoholism and drug dependence. *JAMA* 1973; 223(6): 684-687.
2. Hughes, P., Brandenburg, N., Baldwin, D, et al. Prevalence of substance use among U.S. Physicians. *JAMA* 1992; 267: 2333-2339.

**THURSDAY, MAY 25, 2006**

**MEDIA WORKSHOP 7**  
**“BAD EDUCATION”: PORTRAYING**  
**TRANSSEXUALISM, PEDOPHILIA, AND**  
**ADDICTION**  
**American Academy of Child and Adolescent**  
**Psychiatry**

*Chairperson:* Jose P. Vito, M.D., *SUNY/Downstate, Psychiatry Department, 235 East 57 Street #16A, New York, NY, 10022*

*Presenter:* Richard R. Pleak, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participants should be able to recognize and use in their teaching a powerful tool for

conveying an accurate and sympathetic depiction of transsexualism, pedophilia, and addiction. The participants will learn the psychological and medical effects of drug addiction, and to demonstrate the biopsychosocial perspectives of gay, lesbian, and transgender issues.

**SUMMARY:**

The media have long shown a fascination with portraying the struggle and major adjustments of individuals with transsexualism, the potential for dramatic decompensation of individuals with pedophilia, and the troubles of substance abuse and addiction. The purpose of this workshop is provoke a lively discussion and plan for these individuals’ care, especially as gay, lesbian, and transgender issues have been so much in the news recently.

The film portrays gender switching and an ongoing critique of the church. It is an ambitious story that questions identity, desire, love, and power. “Bad Education” also raises substantial questions involving psychological trauma, with its challenges and impact on emotional development, and the consequences of child molestation. Topics for discussion include the complexity of these characters, the emotions inherent in the material, and how we can use all these elements in our psychiatric practice. Workshop participants will have the opportunity to explore and compare their own clinical experiences related with issues of working with sexuality, transsexuality, intimacy, and conflicts that arise. They will have a better ability to identify the critical elements needed to learn and understand these issues.

**REFERENCES:**

1. Journal Article - Kaplov JB: Pathways to PTSD, Part II: Sexually Abused Children. *Am J Psychiatry* 2005; 162: 1305-1310.
2. Book - Pleak RR, Anderson DA: Clinical Assessment: Observation/ Interview/ Mental Status Assessment: Specialized Populations: Homosexual Adolescents. In: Noshpitz JD (ED). *Handbook of Child and Adolescent Psychiatry, Volume 5*, John Wiley & Sons 1998.

**MONDAY, MAY 22, 2006**

**COMPONENT WORKSHOP 1**  
**DISASTER PSYCHIATRY: PRACTICAL SKILLS TO**  
**HELP DISTRICT BRANCHES DEVELOP DISASTER**  
**PLANS FOR THEIR COMMUNITIES**  
**APA Committee on Psychiatric Dimensions of**  
**Disasters**

*Co-Chairpersons:* Christina V. Mangurian, M.D., *Columbia University, Department of Psychiatry, 1051 Riverside Drive, Box 97, New York, NY, 10032*

*Lisa A. Catapano, M.D., George Washington University, Department of Psychiatry, 1628 Riggs Place NW, Washington, DC, 20009*

*Presenters:* Anthony T. Ng, M.D., Edward M. Kantor, M.D., Mary Jo Fitz-Gerald, M.D., Joseph C. Napoli, M.D., Jon S. Berlin, M.D.

**EDUCATIONAL OBJECTIVES:**

-District Branches will acquire skills to develop a practical and effective plan in case of a disaster in their area. Specifically, District Branches will be able to assess needs, disseminate information, coordinate efforts, and provide care to the population in their district in the event of a disaster.

-Guidelines for creating a District Branch disaster plan will be distributed.

**SUMMARY:**

In the past year, Hurricane Katrina, the London bombings and the Asian tsunami have highlighted the need for preparedness in our field in order to mitigate the psychosocial impact of disasters upon

our patients, colleagues, and society in general. The Committee on Psychiatric Dimensions of Disaster has been involved in developing District Branch liaison resources to allow members to better serve patients in their community who are exposed to disasters. Through a combination of presentations and small group discussions, this workshop will help District Branches develop the necessary skills to implement effective disaster plans for their communities. By the end of the workshop, they will be able to: 1) assess the needs of their community in the event of a disaster; 2) disseminate information about these needs and coordinate care with other District Branches and local, state and federal organizations outside of the APA; 3) coordinate deployment of mental health volunteers to provide care to displaced people, other volunteers, local health care workers, and law enforcement; 4) contact local psychiatrists to ensure their safety and offer support; 5) assist in rebuilding District Branches if needed; and 6) promote social healing.

#### REFERENCES:

1. Norwood AE et al.: Disaster Psychiatry: Principles and Practice. *Psychiatric Quarterly* 2000; 71(3): 207-226.
2. Fullerton CS et al.: Debriefing Following Trauma. *Psychiatric Quarterly* 2000; 71(3): 259-276.

### COMPONENT WORKSHOP 2 PAY FOR PERFORMANCE: LINKING INCENTIVES TO PROVIDER PERFORMANCE ON QUALITY MEASURES APA Council on Quality Care & APA Council on Healthcare Systems and Financing

*Co-Chairpersons:* Richard C. Hermann, M.D., Tufts University School of Medicine, Center for Quality Assessment and Improvement in Mental Health, 750 Washington Street, #345, Boston, MA, 02111  
Bruce J. Schwartz, M.D., Montefiore Medical Center, Department of Psychiatry & Behavioral Science, 39 Sheldon Street, Ardsley, NY, 10502  
*Presenters:* John M. Oldham, M.D., Nicholas Meyers

#### EDUCATIONAL OBJECTIVES:

By the end of the presentation participants will be able to:

- 1) Describe the intent of pay-for-performance reimbursement of mental health services
- 2) Describe the clinical and legislative context giving rise to pay-for-performance programs
- 3) Describe the strengths and limitations of available quality measures and how this will influence the impact of pay-for-performance

#### SUMMARY:

Clinical practice varies widely in mental health care--as it does elsewhere in medicine--with evidence of underuse of services as well as gaps between clinical practice and evidence-based recommendations for care. Efforts to improve quality are widespread, but progress toward measurable change has been slow. Seeking to accelerate improvements in care, payers and policymakers are moving to link reimbursement rates to provider performance on commonly used quality measures. "Pay-for-performance" initiatives are taking hold among commercial health plans and will likely be adopted by Medicare. The impact of pay for performance will depend in part on what quality measures are used in these programs. Available measures vary in their clinical importance, evidence-base, validity and burden. This workshop will review the status of pay for performance, its potential impact on clinicians, and the processes by which national bodies are selecting measures of mental health care. Discussion will include interactive review of the potential applicability of various performance measures to pay-for-performance.

#### REFERENCES:

1. Hermann RC: Improving Mental Healthcare: A Guide to Measurement-based Quality Improvement. Washington, DC, American Psychiatric Press, 2005.
2. Rosenthal MB, Fernandopulle R, Song HR, Landon B: Paying for quality: provider's incentives for quality improvement. *Health Aff* 2004; 23: 127-141.

### COMPONENT WORKSHOP 3 CAREER CHOICES IN PSYCHIATRY: EXPLORING FELLOWSHIP TRAINING APA Assembly Committee of Area Member-in- Training Representatives

*Chairperson:* Vincent J. Blanch, M.D., University of Kentucky, Psychiatry, 721 Rainwater Drive, Lexington, KY, 40515

*Presenters:* Chad Y. Koyanagi, M.D., Martin Gignac, M.D., William F. Haning III, M.D., Brian A. Greenlee, M.D.

#### EDUCATIONAL OBJECTIVES:

This workshop examines the decision to undertake fellowship training. At the conclusions of this workshop, the participants will be able to identify 1) some advantages and disadvantages of the practice of Public Psychiatry, Child & Adolescent Psychiatry, Addiction Psychiatry, and Neuropsychiatry and 2) understand the participants' own decision-making process.

#### SUMMARY:

The practice possibilities in Psychiatry are vastly diverse and becoming more so. Psychiatrists, too, vary in their interests, lifestyle goals, and working style, so it's no surprise that the decision whether to undertake fellowship training is one of the more complex decisions psychiatrists face. This workshop is to help psychiatric residents and established psychiatrists who are considering fellowship training determine whether subspecialty training will meet their needs and further their career goals. Four psychiatrists, practicing in Child & Adolescent Psychiatry, Public Psychiatry, Neuropsychiatry, and Addiction Psychiatry will discuss their own decision-making process and how they chose the specialty they did. They will also describe what their daily work is like and what drew them to their current work settings. Finally, they will offer their own insight on what was useful to them when making this decision and what they wish they'd done differently. After a brief introduction, speakers will take part in a panel discussion of audience questions. There will be ample opportunity to discuss issues related to career choices, subspecialty training, practice opportunities and professional lifestyles with the panelists.

#### REFERENCES:

1. Dorwart R: a national study of psychiatrists' professional activities. *Am J Psychiatry* 1992; 49:1499-1505.
2. Kaplan HI, Sadock BJ: Synopsis of Psychiatry. Baltimore, Williams and Wilkins, 1998.

### COMPONENT WORKSHOP 4 SEVERELY MENTALLY ILL PERSONS IN JAILS AND PRISONS: WHO SHOULD STAY? APA Corresponding Committee on Jails and Prisons

*Chairperson:* Henry C. Weinstein, M.D., New York University School of Medicine, 1111 Park Avenue, New York, NY, 10128

*Presenters:* H. Richard Lamb, M.D., Cassandra F. Newkirk, M.D., Tom Hamilton, Erik J. Roskes, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to describe and demonstrate techniques for the decriminalization

of persons with serious and persistent mentally illness - based on recent research. In addition, the participant should be able to describe the history of the criminalization of the mentally ill, discuss efforts to prevent the criminalization of the mentally ill, including diversion programs, mental health courts, and reentry programs as well as programs for the delivery of psychiatric services in jails and prisons; describe the details of an exemplary state program and discuss the clinical evaluation of persons with serious and persistent mental illness for transfer out of a correctional facility into a civil hospital or directly into the community..

#### SUMMARY:

The APA Committee on Jails and Prisons presents this interactive workshop "Severely Mentally Ill Persons in Jails and Prisons - Who Should Stay."

As recently as 40 years ago, a person with severe and persistent mental illness charged or convicted of a crime might be incarcerated in a so-called "Hospital for the Criminally Insane" for his entire life. He was assumed to be too dangerous to be housed in a civil state hospital. However, in 1966, in the landmark case of *Baxstrom v. Herold*, the U.S. Supreme Court held that such patients could not, without a jury review of their civil commitment and a judicial determination that they were dangerously mentally ill, be kept in the criminal justice system - in a correctional facility - beyond their sentences.

Since that time deinstitutionalization has resulted in a sharp drop in the number of patients in state hospitals - from about 560,000 in 1955 to less than 60,000 today - and a reciprocal increase in the number of severely mentally ill persons in jails and prisons to more than 300,000 today.

Severely mentally ill patients who are inappropriately incarcerated in a criminal justice / correctional facility have been, essentially, "criminalized." Efforts seeking to prevent such "criminalization" include diversion programs and mental health courts. However, it is clear that not all patients with serious and persistent mental illnesses should be transferred from the criminal justice (correctional) system to the civil (mental health) system.

The research presented in this workshop studies the question of which persons with serious and persistent mental illness were inappropriately incarcerated in a correctional facility. It examined a random sample of men with major mental illnesses who were arrested and placed in a psychiatric treatment unit within a major urban county jail. Using specific criteria such as: the seriousness of the criminal activity; whether the individual was severely mentally ill at the time of the criminal activity; the seriousness of the individual's previous criminal activity; the individual's psychiatric history, and the individual's mental status, 55% were judged "should have been placed in the mental health system" and 45% were judged "should have been placed in the criminal justice system."

The question then arises in regard to those who should stay in a correctional facility, how can adequate psychiatric services be delivered in this setting? Various models for the administration of mental health services in correctional settings that have evolved during the last several years will be discussed including private behavioral health organizations and medical universities in partnership with state corrections departments. An exemplary program in the state of Texas that uses a disease management model and mandates specific services as well as the collection of detailed cost data will be described.

Since the decision to release an inmate with severe and persistent mental illness is complex, a final brief presentation will focus on the clinical assessment of such individuals' suitability for release and on the clinical aspects of their reintegration in the community.

#### REFERENCES:

1. American Psychiatric Association. (2000). *Psychiatric services in jails and prisons*. (2nd edn.) Washington, DC: American Psychiatric Association.

2. National Commission on Correctional Health Care. (2003). *Standards for health services in prisons*. Chicago, IL: National Commission on Correctional Health Care.

#### COMPONENT WORKSHOP 5 CRIME AND CRUEL NOT UNUSUAL PUNISHMENT: THE NEED FOR JUVENILE JUSTICE MENTAL HEALTH CARE REFORM APA Alliance

*Chairperson:* Louis J. Kraus, M.D., *Rush University Medical Center, Child and Adolescent Psychiatry, 1720 West Polk Avenue, Chicago, IL, 60612*

*Presenters:* William Arroyo, M.D., Niranjan Karnik, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

1. Recognize many of the challenges of providing mental health services to juveniles who are involved with the justice system.
2. Understand the co-morbidity of substance abuse and mental illness in this population.
3. Identify ways in which public policy can be influenced to improve the provision of mental health services in the juvenile justice system.

#### SUMMARY:

Federal investigations and legal actions have highlighted often abysmal conditions endured by the youngest, most vulnerable individuals in the criminal justice system. Incidents of juveniles with mental illness languishing in detention while awaiting psychiatric evaluation and treatment, being exposed to the general juvenile and sometimes the adult detention population and never receiving referral to appropriate outpatient mental health services are just some examples of how the lack of appropriate care provided to these children and adolescents constitutes cruel and unusual punishment. The objectives of this program are to describe current conditions in many juvenile justice systems, mental health and substance abuse treatment challenges faced by this population and ways in which psychiatrists and other mental health care professionals can play a role in advocating for change on behalf of juveniles who are involved in the system. Dr. Louis Kraus will present many of the challenges of providing mental health services to those involved in the juvenile justice system. Dr. Niranjan Karnik will discuss the co-morbidity of substance abuse and mental illness in this population. Dr. William Arroyo will describe ways that psychiatrists may influence public policy to improve the provision of mental health services in the juvenile justice system. Each presentation will last 20 minutes, with 30 minutes reserved for audience participation. The audience will be encouraged to participate in this workshop by asking questions and participating in discussion with the presenters.

#### REFERENCES:

1. Kraus L: *Juvenile Reform Monograph*, Second Edition. Washington, D.C., American Academy of Child and Adolescent Psychiatry, 2005.
2. Bervera X: *Reclaiming Children from the Prison System: The Juvenile Justice Reform Act*. State of Louisiana, 2003.



**COMPONENT WORKSHOP 6  
CLOSING A PRACTICE: WHAT EVERY  
PSYCHIATRIST'S OFFICE AND THEIR FAMILY  
SHOULD KNOW**

**APA Corresponding Committee on Physician  
Health, Illness, and Impairment**

*Chairperson:* John A. Fromson, M.D., *Massachusetts  
Medical Society, 860 Winter Street, Waltham, MA, 02451*

*Presenters:* Michael F. Myers, M.D., Margo S. Adams

**EDUCATIONAL OBJECTIVES:**

Presenter One:

Dr. Fromson, Chair of the APA Corresponding Committee on Physician Health, Illness and Impairment, will present an introduction to and overview of the new APA Resource Kit, including highlighting key risk management considerations.

Presenter Two:

Dr. Myers, a specialist in physician health, will discuss ways in which a clinician can be of assistance when a psychiatrist dies: (1) treatment of the spouse and/or children if indicated, especially differentiating normal bereavement from depression; (2) assistance in finding colleagues to assume immediate care of the patients of the deceased (some of whom may be grief-stricken and very vulnerable); (3) guidance regarding legal counsel when/if that is necessary; (4) advocacy with insurance companies, depending upon the cause of death and any pending investigation.

**SUMMARY:**

In the event of sudden illness, incapacity or the death of a psychiatrist, are detailed plans in place in your practice to provide cover, organize administrative affairs, contact patients, and respond to enquiries about medical records, referrals, and prescriptions? The time to plan for this situation is, of course before such an emergency occurs but where do psychiatric physicians find relevant, accurate guidance in a practical summarized format, for those who may one day need to rely upon it?

This workshop has been developed in response to enquiries from the family members and staff of APA members, who regularly contact District Branches for advice, clearly demonstrating the need for practical and immediate guidance to help them navigate complex systems without feeling overwhelmed.

This workshop is desired to alert psychiatrists, their staff and family members to the myriad of clinical and administrative issues that may arise in their absence, and indicate how check lists, policies and documentation prepared in advance can provide peace of mind and continuity of service for their practice and their patients. The workshop will provide an overview of an essential new APA "toolkit" which is specific to psychiatry, and offers a new member benefit in risk management.

**REFERENCES:**

1. APA Corresponding Committee on Physician's Health and Impairment & APA District Branch and State Associations Executive Directors Committee: Closing a Practice: What every psychiatrist's office and their family should know". American Psychiatric Press.

**COMPONENT WORKSHOP 7  
CONQUERING THE SHAME, SECRECY, AND  
STIGMA OF SUICIDE IN ASIAN-AMERICAN YOUNG  
ADULTS**

**APA Committee of Asian-American Psychiatrists**

*Chairperson:* Surinder S. Nand, M.D., *University of Illinois,  
Chicago, 900 South Wood Street, Chicago, IL, 60612*

*Presenters:* Eric C. Li, M.D., Lois W. Choi-Kain, M.D., Aruna Jha, Ph.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this session, the participant should be able to recognize the cultural and familial conflicts, early signs and symptoms, and treatment barriers in addressing suicide in the young Asian-American population.

**SUMMARY:**

Suicide is the third leading cause of death among young adults in the United States. Asian-Americans now account for about 4 percent of the U. S. population and are a fast-growing racial group. Although there is an increased public awareness of suicide in the young adult population, there has been only recent attention to this issue in the Asian-American community.

For many Asian-Americans, the stigma of mental illness delays access to appropriate psychiatric treatment. Recognition of suicide risk factors in young Asian-Americans is challenging especially with the secrecy and shame surrounding mental illness. Community awareness is a critical step to address this problem.

Participants in this workshop will learn to identify at risk Asian American young adults, recognize the cultural conflicts, and develop coping strategies for families in the aftermath of completed suicides. Discussion will address the prevention and the community education necessary to prevent suicide.

**REFERENCES:**

1. Bhatia, S.C., Khan, M.H., Mediratta, R.P., & Sharma, A. (1987). High risk suicide factors across cultures. *The International Journal of Social Psychiatry*, 33(5), 226-236.
2. Furr, S.R., Westfield, J.S., McConnell, G.N., & Jenkins, J.M. (2001). Suicide and depression among college students: A decade later. *Professional Psychology ' Research and Practice*, 32 (1), Feb., U.S.: American Psychological Association. 200.

**COMPONENT WORKSHOP 8  
CPT CODING AND DOCUMENTATION UPDATE  
APA Committee on RBRVS, Codes, and  
Reimbursements**

*Chairperson:* Chester W. Schmidt, Jr., M.D., *Johns Hopkins  
Bayview Medical Center, Department of Psychiatry, 4940  
Eastern Avenue, A4C-458, Baltimore, MD, 21224-2735*

*Presenters:* Tracy R. Gordy, M.D., Edward Gordon, M.D.,  
Napoleon B. Higgins, Jr., M.D., Ronald M. Burd, M.D., Allan  
A. Anderson, M.D., David K. Nace, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the workshop the participants will 1) be knowledgeable about current Medicare and CPT coding changes, 2) be updated as to Medicare reimbursement concerns, 3) have their individual questions about coding, documentation and reimbursement answered.

**SUMMARY:**

The goals of this workshop are to inform practitioners about changes in the RBRVS Medicare physician reimbursement system, modifications in CPT coding and current issues associated with documentation guidelines. This year's workshop will focus on 1) recent changes to the CPT coding system that impact psychiatry 2) review of current Medicare reimbursement issues and concerns, 3) a review of documentation guidelines for evaluation and management services as well as services defined under the psychiatry section of CPT. Time will be reserved for questions and comments from the participants about the above topics as well as issues and problems faced by the participants in their own practices.

## REFERENCES:

1. Schmidt, CW, Yowell, RK, Jaffe, E: CPT Handbook for Psychiatrists, Third Edition. American Psychiatric Press, 2004.
2. CPT 2005, American Medical Association, Chicago, IL, 2004.

**COMPONENT WORKSHOP 9**  
**NEW DEVELOPMENTS IN APA PRACTICE**  
**GUIDELINES ON BIPOLAR DISORDER, MDD, AND**  
**PANIC DISORDER**  
**APA Steering Committee on Practice Guidelines**

*Chairperson:* Jack S. McIntyre, M.D., *Unity Health System, 2000 South Winton Road, Building 4 Suite 303, Rochester, NY, 14618*

*Presenters:* Laura J. Fochtmann, M.D., Robert M.A. Hirschfeld, M.D., Alan J. Gelenberg, M.D., Murray B. Stein, M.D.

## EDUCATIONAL OBJECTIVES:

- \* Understand the development process, goals, and dissemination efforts for APA practice guidelines.
- \* Find brief, timely updates of APA practice guidelines published online and in print compendiums.
- \* Learn about major developments in treatment since publication of three guidelines: Bipolar Disorder, Major Depressive Disorder, and Panic Disorder.

## SUMMARY:

Since 1991, APA has published 14 evidence-based practice guidelines. The guidelines are increasingly used to aid clinical decision-making and for continuing medical education, certification and recertification, and quality improvement. In recent years, more attention has been given to the currency of guideline recommendations and the need for timely revision. In 2004, APA began publishing guideline watches, brief updates summarizing major developments in the scientific literature since guideline publication that could lead psychiatrists to treat patients in a manner different from what is recommended in the guideline. Workshop participants will discuss APA's process for guideline development, dissemination, review, and revision, including development and publication of guideline watches. Authors of watches on Bipolar Disorder, Major Depressive Disorder, and Panic Disorder will review major developments in treatment of these disorders since publication of practice guidelines on these topics in 2002, 2000, and 1998, respectively.

## REFERENCES:

1. American Psychiatric Association. Practice Guidelines for the Treatment of Psychiatric Disorders: Compendium 2004. Arlington, VA: American Psychiatric Association.
2. American Psychiatric Association. Quick Reference to the APA Practice Guidelines for the Treatment of Psychiatric Disorders: Compendium 2004. Arlington, VA: American Psychiatric Association.

**COMPONENT WORKSHOP 10**  
**THE GIFT OF LIFE: A PSYCHIATRIC**  
**PERSPECTIVE ON LIVING HEPATIC ORGAN**  
**DONATION**  
**APA Council on Psychosomatic Medicine**

*Co-Chairpersons:* Philip R. Muskin, M.D., *Columbia University, Consultation-Liaison Psychiatry, 622 West 168th Street, MB 427, New York, NY, 10032-3874*

*Silvia Hafliger, M.D., Columbia University, Consultation-Liaison Psychiatry, 215 W 95th Street, # 17F, New York, NY, 10025-6331*

*Presenters:* Beth A. Grube, Ph.D., Matthew Muskin

## EDUCATIONAL OBJECTIVES:

Participants will understand the complexity of evaluating potential organ donors.

Participants will review the psychiatric factors which indicate an individual should or should not be recommended as a potential donor.

Participants will learn about the issues donors face pre and post liver donation.

## SUMMARY:

**Background:** The need for organ donation outweighs the availability of cadaveric/living organs by a large factor. 2733 people have donated a portion of their liver to save a relative or friend (1988-2005). The waiting period and the rate of death for those on waiting lists have increased by a factor of 10 in the past decade. Numerous problems confound the use of cadaveric organs including potentially unknown infection, quality of the organ, and long term survival. Thus programs to obtain healthy living organs are crucial to procure the maximum number of healthy organs while continuing to protect the interests of potential donors.

This workshop (component workshop of the Council on Psychosomatic Medicine) will present three perspectives on living organ donation

**Introduction:** Philip R. Muskin, MD (Chair, APA Council on Psychosomatic Medicine)

**Psychiatric Evaluation of Potential Living Organ Donors**

We will present data from the largest review of potential liver donors evaluated by a psychiatrist (N=145). Of this group 45% were female and 55% were male. 25/145 (17%) were rejected for psychiatric reasons (yet 7/25 were allowed to donate). In the group that was accepted for donation after psychiatric evaluation only 72/120 (60%) went on to donate. Detailed analysis of this donor group will be presented.

**Issues in the Psychiatric Evaluation of the Organ Donor**

There are numerous considerations in the evaluation of the potential organ donor, including the psychiatric evaluation, motivation for donation, and possible issues of conflict with the family. The psychiatrist must evaluate how well the donor understands the risks of the procedure and to what extent the donor has "magical" expectations for the recipient. This presentation will discuss how mental health professionals can both maximize the procurement of organs while protecting the people who seek to donate.

**Organ Donation from a Donor Perspective**

This presentation will focus on the experience of organ donation from a mental health professional who was a living organ donor. The presentation will review psychological issues of the donor, the physical realities of organ donation, and the post transplantation experience(s) with the recipient.

The presentations will be followed by audience discussion and participation.

## REFERENCES:

1. Brown RS, Russo RW, Lai M: A Survey of Liver Transplantation from Living Adult Donors in the United States *NEJ Medicine* 2003; 348:818-825.
2. DiMartini A et al: Organ Transplantation in The APPI Textbook of Psychosomatic Medicine. Ed. Levenson JL. Washington, DC APPI, 2005, pp 675-700.

**COMPONENT WORKSHOP 11  
TOWARDS A BETTER UNDERSTANDING OF  
CULTURAL ISSUES IN CLINICAL PRACTICE:  
RESIDENTS PERSPECTIVE OF A MODEL  
CURRICULUM FOR RESIDENCY TRAINING  
PROGRAMS  
APA/AstraZeneca Minority Fellows**

*Chairperson:* Angel A. Caraballo, M.D., *State University of New York at Stony Brook, Department of Psychiatry and Behavioral Sciences, HSC T10-20, Stony Brook, NY, 11794*  
*Presenters:* Lois W. Choi-Kain, M.D., Alphonso Nichols III, M.D., Jennifer D. Pender, M.D., Yanni C. Rho, M.D., Francis G. Lu, M.D.

**EDUCATIONAL OBJECTIVES:**

1. At the end of this presentation, the participant should be able to identify key issues in cultural care and diversity issues in psychiatric education & practice.

2. Participants will understand the ways to build programs to educate practitioners, trainees and students about cultural issues, and more specifically how to effectively implement the outline for cultural formulation.

**SUMMARY:**

Competence in cultural care is one of several ACGME content areas that are now required in psychiatry residency training and this content area has been extensively discussed (1). Within many training programs, curriculum documents and competency standards have been published (2), but very little translation work has taken place to develop specific strategies for incorporating these standards into residency education.

This workshop aims to bridge the divide by demonstrating specific ways that individual residents can develop methods to incorporate a cultural curriculum into their educational programs. One major model that has been recently developed in DSM-IV has been the outline for cultural formulation. Unfortunately, very little attention has been paid to the implementation and education about the use of this tool. Participants who attend this workshop will learn about specific strategies for incorporating cultural issues into educational practices and the use of the outline for cultural formulation. Specific strategies to be discussed will include recruitment, conferences & symposia, resident-initiated seminars, cultural formulation case studies.

**REFERENCES:**

1. American Medical Association.: Cultural competence compendium. Chicago, IL, American Medical Association, 1999.
2. Tseng W-S, Streltzer J: Cultural competence in clinical psychiatry. Washington, DC, American Psychiatric Pub., 2004.

**COMPONENT WORKSHOP 12  
ETHNICITY AND CAREGIVING ACROSS THE  
PSYCHIATRIC SPECTRUM  
APA Committee on Ethnic Minority Elderly**

*Co-Chairpersons:* Iqbal Ahmed, M.D., *University of Hawaii, 1356 Lusitana Street, 4th Floor, Honolulu, HI, 96813;*  
*Warachal E. Faison, M.D., Medical University of South Carolina, 5900 Core Road, Suite 203, North Charleston, SC, 29406*  
*Presenters:* Carl I. Cohen, M.D., Alveth J. Young, M.D., Yolonda R. Coleman, M.D., Cynthia I. Resendez, M.D., Nhi-Ha T. Trinh, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this session, the participant should be able to demonstrate knowledge about the issues related to elders giving

care to family members who suffer from Alzheimer's dementia or other psychiatric disorders. Participants will be able to demonstrate an understanding of how ethnic and cultural factors may shape attitudes towards caregiving, and on caregiver burden, among the major ethnic groups in the U.S.

**SUMMARY:**

Caregiving has emerged as a critically important public health issue. There are more than 22 million persons, caring for 14 million elderly Americans, and, by the year 2050, these numbers will increase to 40 million caregivers, caring for 28 million older persons. With the overall aging of the population, there are increasing numbers of elders involved in caregiving activities of other older family members with dementias, as well as younger family members such as their children who may be suffering from other psychiatric disorders. Caregiving has been associated with significant psychosocial and biological burden on the caregivers. This can contribute to psychiatric morbidity in the form of increased depression and anxiety. Research also suggests that the combination of loss, prolonged distress, physical demands of caregiving, and biological vulnerabilities of older caregivers may compromise their own physiological functioning and increase their risk for physical health problems.

Alzheimer's disease and other psychiatric are common disorders that widely affect all races and ethnicities. Although there has been considerable research focusing on the stress experienced by family caregivers of patients with these disorders, there has been little work to guide clinicians in tailoring interventions to the special needs of racially and ethnically diverse families. This workshop reviews both the overall issue of caregiving, as well as ethnic, and cultural differences in the stress associated with caregiving for a family member with dementia or other psychiatric disorders. The workshop explores these issues in the three major ethnic minority groups in the U.S., the African-Americans, Hispanic Americans, and Asian-Americans. This will hopefully lead to guidelines for creating culturally competent interventions

**REFERENCES:**

1. Schulz R, Martire L: Family caregiving of persons with dementia: prevalence, health effects, and support strategies. *Am J Geriatr Psychiatry* 2004; 12:240-249.
2. Gallagher-Thompson D, Haley W, Guy DL et al: .

**COMPONENT WORKSHOP 13  
SEXUALITY AND ITS IMPACT ON THE HIV  
PANDEMIC  
APA Committee on HIV / AIDS**

*Chairperson:* Marshall Forstein, M.D., *Harvard, 24 Olmstead Street, Jamaica Plain, MA, 02130-2910*  
*Presenters:* Milton L. Wainberg, M.D., Khakasa H. Wapenyi, M.D.

**EDUCATIONAL OBJECTIVES:**

At the end of this this workshop participants will be able to:  
--identify how cultural values affect sexual behaviors;  
--describe how sexual behaviors proliferate the HIV epidemic;  
--identify therapeutic dilemmas in patients unable to prevent the transmission of HIV.

**SUMMARY:**

Sexuality is a complex, multidimensional phenomenon the incorporates biologic, psychologic, interpersonal, and behavioral dimensions. It is important to recognize that a wide range of normal sexual functioning exists. Ultimately, sexuality is defined by each patient and his/her partner within a context of factors such as gender, age, personal attitudes, and religious and cultural values. During this workshop panelists will discuss sexual function among various patient groups (including heterosexual, gay, lesbian, bisexual, and

transgender individuals) across different cultures and communities. Panelists will also identify various treatment and therapeutic modalities, examine cultural attitudes toward sexual practices, and discuss sexual behaviors that place individuals at risk for HIV. Participants are asked to bring clinical dilemmas, countertransference issues, and ethical issues to discuss at the workshop.

#### REFERENCES:

1. Strategies to prevent HIV transmission among heterosexual African-American men.
2. Aging and male sexuality.

### COMPONENT WORKSHOP 14 PSYCHIATRIC ETHICS IN THE UNITED STATES AND THROUGHOUT THE WORLD APA Ethics Committee

*Co-Chairpersons:* Spencer Eth, M.D., *St. Vincent's Hospital and Medical Center, 144 West 12th Street, Room 174, New York, NY, 10011*

George Christodoulou, M.D., *Hellenic Psychiatric Association, President, 11 Papadiamantopoulou Street, Athens, 11528, Greece*

*Presenters:* Wade C. Myers, M.D., Julio Arboleda-Florez, M.D., Philip T. Merideth, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session the participant should be able to recognize, compare and contrast the different codes of psychiatric ethics in force throughout the world.

#### SUMMARY:

The APA Ethics Committee and the World Psychiatric Association Standing Committee on Ethics will jointly conduct a workshop that will compare, contrast and discuss codes of medical ethics applicable to the practice of psychiatry that are in operation in the United States and in other countries throughout the world. Particular issues of concern will include therapeutic boundary violations, confidentiality, consent and involuntary treatment, research and human subject protection, religious constraints on practice, psychiatric involvement in capital punishment, and the influence of religious and cultural factors on professional conduct. In addition differing approaches to ethics education and enforcement will be highlighted. The audience will have ample opportunities to interact with the workshop presenters, who will all be members of either the APA Ethics Committee or the Standing Committee on Ethics of the World Psychiatric Association.

#### REFERENCES:

1. AMA Principles of Medical Ethics with Annotations Procedures of the APA. Helsinki Declaration of the World Medical Association, 2000.
2. none.

### COMPONENT WORKSHOP 15 TEACHING THE WORKING ALLIANCE AS A CORE PROCESS ACROSS THE PSYCHOTHERAPIES APA Committee on Psychotherapy by Psychiatrists

*Chairperson:* Eric M. Plakun, M.D., *The Austen Riggs Center, 25 Main Street, P.O. Box 962, Stockbridge, MA, 01262*

*Presenters:* Bernard D. Beitman, M.D., Donna M. Sudak, M.D., Norman A. Clemens, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be familiar with 3 approaches to teaching the working alliance in psy-

chotherapy, including from a "common factors" perspective, and from CBT and psychodynamic perspectives.

#### SUMMARY:

Recognizing the importance and the difficulty of teaching psychotherapy to residents, the APA Committee on Psychotherapy by Psychiatrists has developed a teaching model that unifies the five psychotherapy competencies into one integrated whole. The stem of the resulting "Y-shaped" structure includes the core processes of all psychotherapies, which form the foundation for three of the previous competencies: Supportive Psychotherapy, Brief Psychotherapy, and Combining Psychopharmacology and Psychotherapy. The Y-model then branches into 6 core features of cognitive behavioral therapy [CBT] and 6 core features of psychodynamic therapy derived from the comparative psychotherapy process research literature. In the Y-model, CBT and psychodynamic therapy are conceptualized as two divergent therapies that build on basic skills, with differentiated approaches to managing therapist activity, the role of the unconscious, the therapeutic relationship, symptoms and affects. This workshop offers a brief overview of the Y-model, and then focuses on its implementation as a teaching tool by illustrating an approach to teaching the working alliance from 3 perspectives: a common factors approach, and CBT and Psychodynamic approaches. Half the workshop will be reserved for audience discussion.

#### REFERENCES:

1. Blagys MD and Hilsenroth MJ. 2000. Distinctive features of short-term psychodynamic-interpersonal psychotherapy: A review of comparative psychotherapy process literature. *Clinical Psychology: Science and Practice*; 7:167-188.
2. Blagys MD and Hilsenroth MJ. 2002. Distinctive activities of cognitive-behavioral therapy: A review of comparative psychotherapy process literature. *Clinical Psychology Review*; 22:671-706.

### COMPONENT WORKSHOP 16 SCALES IN THE CLINICAL PRACTICE OF GERIATRIC PSYCHIATRY APA Committee on Access and Effectiveness of Psychiatric Services for the Elderly

*Chairperson:* Allan A. Anderson, M.D., *Shore Behavioral Health Services, 300 Bryn Street, Cambridge, MD, 21613*

*Presenters:* Lina S. Shihabuddin, M.D., Colleen J. Northcott, M.D.

#### EDUCATIONAL OBJECTIVES:

- At the conclusion of this presentation the participant will be able to:
- 1) Discuss how scales might enhance one's clinical practice.
  - 2) Identify various scales that could be utilized in the clinical practice of geriatric psychiatry.
  - 3) Discuss limitations to the use of scales.
  - 4) Administer scales to patients and appropriately score the scales.

#### SUMMARY:

There has been an increasing emphasis on documenting the benefits of specific treatments in the field of psychiatry as well as in other specialties. Compared to other medical specialties the clinical practice of psychiatry has fewer objective measures that document the clinical state of our patients. The use of various scales may help to fill this void. This session will focus on the clinical use of scales in the practice of geriatric psychiatry. The presentation will include discussions of scales that measure mood symptoms, behavioral problems, and cognitive function. Case examples will help clarify how scales can provide an additional measure of the severity and course of psychiatric illness as well as documenting clinical outcomes. There will be a discussion of the selection of specific scales one can use in clinical practice. This will include some discussion of their

strengths and weaknesses. Ample time will be devoted to audience participation.

#### REFERENCES:

1. Burns A, Lawlor B, and Craig S: *Assessment Scales in Old Age Psychiatry*. London, Martin Dunitz Ltd., 2001.
2. Lyketsos CG, Steinberg M: Behavioral Measures for Cognitive Disorders. In *Handbook of Psychiatric Measures*, edited by Rush AJ, Pincus HA, First MB et al, Washington, DC, American Psychiatric Association, 2000, pp393-416.

#### COMPONENT WORKSHOP 17 WINNING THE FIGHT FOR MENTAL HEALTH BENEFITS: PARTNERING WITH EMPLOYERS APA Committee on APA/Business Relationships

*Chairperson:* Dauda A. Griffin, M.D., 22 Ericsson Street, # 3, Belmont, MA, 02478-3646

*Presenters:* Avram H. Mack, M.D., Alan Langlieb, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this symposium, the participant should be able to understand the impact of depression, anxiety, and substance use disorders on America's workforce and the role psychiatrists have in providing quality care.

#### SUMMARY:

Employers are a fundamental component in our healthcare system. With health care costs rising, many employers are focusing more attention on the cost of illness and related expenditures of disability and lost productive time as a means of putting the brakes on a system that is choking the American economy. Moreover, many employers of the new information/technology economy are placing a heightened focus on the impact of depression, anxiety, and substance use disorders.

This new awareness raises important questions: How many employees suffer from depression, anxiety and/or substance use disorders? What impacts do depression, anxiety, and substance use disorders have on other physical illnesses and on worker productivity? How can employers ensure that their employees are receiving the best treatment, and how can they measure the advantages? What is the role for psychiatrists to address and manage these concerns?

This workshop will address these concerns by focusing on the three areas: (1) the prevalence of depression, anxiety, and substance use disorders in the workplace; (2) the social and economic costs as a result of depression, anxiety, and substance use disorders; and (3) how quality mental health care can help reduce the social and economic burdens resulting from these diseases.

#### REFERENCES:

1. Book - Kahn JP, Langlieb AM (eds.). *Mental Health and Productivity in the Workplace: A Handbook for Organizations and Clinicians*. Jossey-Bass/Wiley, 2003.-330.
2. Journal Article - Goetzl, R., Ominkowski, R., Sederer L., et al. The Business Case for Quality Mental Health Services: Why Employers Should Care About the Mental Health and Well-Being of Their Employees. *J Occupational Environ Med*; 2002; 44:320.

#### COMPONENT WORKSHOP 18 CULTURE AS A RATIONALIZATION FOR VIOLENCE AGAINST WOMEN APA Committee on Family Violence and Abuse

*Chairperson:* Gail E. Robinson, M.D., University of Toronto, 200 Elizabeth Street, 8EN-231, Toronto, ON, M5G 2C4, Canada

#### EDUCATIONAL OBJECTIVES:

This workshop will: inform participants about cultural and religious practices which discriminate against women; teach participants

how to distinguish between cultural sensitivity and acceptance of discrimination; demonstrate ways of resisting discriminatory cultural practices.

#### SUMMARY:

Different cultural and religious traditions have long been used as an excuse to justify discriminatory and abusive treatment of women including beating wives for disobedient behaviour or even killing wives or daughters for "dishonouring" the family. Many cultures treat women as second-class citizens, under control of their fathers, brothers or husbands. Such gender role stereotyping is highly correlated with domestic violence. Western societies often find it difficult to find a balance between demonstrating cultural sensitivity versus tolerating unacceptable attitudes and practices directed towards women. As a recent example, in 2004, the Ontario Government, in a misguided attempt to show cultural sensitivity, proposed that Muslims in the province would be able to use Shari'a law to negotiate separations and divorces. Shari'a Law is an orthodox view of Islamic Law derived from multiple sources, including the Koran, that dictates religious, social, legal, political, and economic laws and rituals. It is adhered to by many Muslims, is considered divine, and many countries have formally instituted it as their criminal and civil law codes. The controversy around Shari'a Law involves its strict gender-role stereotyping and pervasive familial and societal inequities of power based on gender. Specifically Shari'a stipulates that men have ultimate authority over women and Muslim women are not allowed to vote, own or inherit property, enter into contracts, or divorce their husbands. Under this law, a woman is worth one half of a man and the husband is automatically given custody of the children. The objectives of this workshop are: to inform participants about the use of culture to rationalize violence and discrimination of women; and to promote discussion on how culture may be used as a way of permitting abuse of women, the fundamental risk of allowing women to "choose" to waive their rights under law in alternative dispute resolution process, and the need to protect women from culturally sanctioned power imbalances that threaten their equality and safety. Constant vigilance is required to ensure that cultural sensitivity is not used as a rationale for infringement of women's rights and the acceptance of domestic violence and abuse of women.

#### REFERENCES:

1. Douki S, Nacef F, Belhadj A, Bouasker A, Ghachem R. Violence against women in Arab and Islamic countries. *Arch Women Ment Health*. 2003;6:165-171.
2. Niaz U. Violence against women in South Asian countries. *Arch Women Ment Health*. 2003;6:173-184.

#### COMPONENT WORKSHOP 19 FACILITATING MINORITY TO EXCEL IN ACADEMIC PSYCHIATRY APA Assembly Committee of Representatives of Minority/Underrepresented Groups

*Chairperson:* Jagannathan Srinivasaraghavan, M.D., Southern Illinois University, Choate Mental Health Center, 1000 North Main, Anna, IL, 62906

*Presenters:* Pedro Ruiz, M.D., Nutan Atre-Vaidya, M.D., Stephen M. Goldfinger, M.D., Carl C. Bell, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the workshop aimed at minority psychiatrists, the participant will learn of opportunities, challenges and clues to recognizing obstacles and overcoming barriers to excel in academic psychiatry from a panel of minority psychiatrists who have personally achieved academic excellence.

**SUMMARY:**

American Psychiatric Association represents significant number of minority in its members and members in training and shows its commitment by having an Office of Minority and National Affairs. There are various programs for minority development including Program for Minority Research Training in Psychiatry (PMRTP), and both short- and long-term training opportunities in medical school, residency and post-residency for minorities and underrepresented groups in research. While the majority of resident trainees entering psychiatry fall under one or more of the minority and under-represented groups, the number of academic faculty who mirror this non-majority status is comparatively small. There is a tremendous need for qualified and well trained minority faculty to serve as role models, to teach and inculcate in both our minority and other trainees cultural sensitivity in their clinical work, research endeavours and their own future training. This workshop is aimed at facilitating our approaches to attracting young and aspiring minorities to academic psychiatry and providing with the tools for succeeding in the academic world. The panelists are all well accomplished leaders representing minority caucuses such as African, Asian, Hispanic Americans, Gay, Lesbian and Bi-sexual Psychiatrists, International Medical Graduates, and Women. The panelists serve as role models in different facets of academic psychiatry. In this workshop, they will use both formal program descriptions and personal accounts to help the audience develop strategies for fostering successful careers in teaching, research, administration, professional organizations, and community and public psychiatry. After initial presentations, active interplay with the attendees will sculpt the majority of the workshop.

**REFERENCES:**

1. Palepu A, Carr PL, Freidman RH, Amos H, Ash AS, Moskowitz MA. Minority Faculty and Academic Rank in Medicine. *JAMA*. 1998; 280:767-771.
2. Kay J, Silberman KS, Pessar L. Handbook of Psychiatric Education and Faculty Development. American Psychiatric Publishers, 1999.

**TUESDAY, MAY 23, 2006****COMPONENT WORKSHOP 20**

**THE END OF HOSPITALIZATION? TRENDS IN INTENSIVE MENTAL HEALTH SERVICES FOR CHILDREN AND ADOLESCENTS**  
**APA Council on Children, Adolescents, and Their Families**

*Co-Chairpersons:* Harold Alan Pincus, M.D., *University of Pittsburgh School of Medicine, Psychiatry, 3811 O'Hara Street, Suite 230, Pittsburgh, PA, 15213*

Brady G. Case, M.D., *New York University School of Medicine, Psychiatry, 1 West 72nd Street, Apartment 46, New York, NY, 10023*

*Presenters:* Bradley D. Stein, M.D., Melisa D. Rowland, M.D., Mark A. Demidovich, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the session, the participant should be able to:

- 1) Describe major changes in the utilization of intensive mental health services by American youth over the past decade;

- 2) Identify patient demographic, insurance, and diagnostic characteristics associated with differences in the use of intensive child and adolescent mental health services;

- 3) Compare treatment outcomes of inpatient hospitalization and home-based intensive therapies for youth with mental illness.

**SUMMARY:**

Intensive mental health treatment of American youth underwent marked change during the past decade. The managed behavioral

health practices adopted by most private and public insurers targeted expensive inpatient services and sought to substitute home-based alternatives. The use of pharmacotherapies rapidly expanded, and major diagnostic concepts, like childhood bipolar disorder, were significantly altered. Charting changes in intensive mental health services delivered amidst these transformations, and exploring their implications for the care of mentally ill youth, are the subjects of this workshop.

Dr. Pincus will introduce workshop content and goals and moderate discussion among the audience and panelists. Audience discussion will be encouraged throughout each presentation using question and answer formats and surveys of the clinical and administrative experience of audience members. Audience participation will also be solicited during a dedicated 20 minute question and answer session at the conclusion of the workshop.

Dr. Case will describe trends in inpatient treatment of youth with mental disorders in U.S. community hospitals between 1990 and 2000. A review of changes in the number of discharges, length of stay, charges, diagnostic patterns, disposition, and patient demographic and hospital characteristics will be followed with an audience discussion of their role in the challenges faced by community mental care health systems.

Dr. Stein will discuss differential use of intensive mental health care across race and ethnicity among publicly-insured youth, and the mediating roles of category of public aid (TANF, SSI) and level of care (inpatient, residential, intensive community based). He will discuss with audience members how these findings can inform strategies to decrease racial and ethnic disparities in mental health services utilization.

Drs. Rowland and Demidovich will present an overview of findings from a large randomized clinical trial designed to compare outcomes of acute psychiatric hospitalization of children and adolescents with multisystemic therapy (MST), an intensive home-based intervention. They will discuss with the audience potential implications for clinical decision-making and for the design of effective mental health service systems for youth.

The workshop will conclude with questions from the audience and discussion by audience and panel members.

**REFERENCES:**

1. Pottick KJ, McAlpine DD, Andelman RB: Changing patterns of psychiatric inpatient care for children and adolescents in general hospitals, 1988-1995. *Am J Psychiatry* 2000; 157(8):1267-73.
2. Henggeler SW, Rowland MD, Halliday-Boykins C, et al: One-year follow-up of multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis. *J Am Acad Child Adolesc Psychiatry* 2003; 42(5):543-51.

**COMPONENT WORKSHOP 21**

**BRIDGE SUICIDE: THE PRINCE EDWARD VIADUCT, TORONTO, AND THE GOLDEN GATE BRIDGE, SAN FRANCISCO**  
**APA Northern California Psychiatric Society**

*Chairperson:* Mel Blaustein, M.D., *1199 Bush Street #420, San Francisco, CA, 94109*

*Presenter:* John K. Hines

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to: 1) describe the impulsive nature of suicide; 2) explain common misconceptions about suicidal individuals; 3) analyze statistics about the incidence of suicide and who is affected; 4) discuss studies of suicide and impulsivity; and 5) discuss how bridges are particularly unique, accessible, lethal public means of suicide and how physical barriers are effective deterrents.

**SUMMARY:**

The site of this year's APA meeting in Toronto affords the membership the unusual opportunity to look at the two most lethal structures in North America, the Prince Edward Viaduct and the Golden Gate Bridge.

The Golden Gate Bridge is the number one suicide site in the world with at least 1,300 known deaths since its construction in 1937.

Second only to the Golden Gate Bridge was the Prince Edward Viaduct in Toronto with some 380 deaths until a barrier was erected in 2003. After a six-year campaign battling stereotypes about mental illness, financial concerns and esthetics, the Luminous Veil was built. Winner of the 1999 Canadian Architectural Award of Excellence, the viaduct is an example of combining esthetic with good clinical sense. Barriers have also been built at the Empire State Building, the Eiffel Tower, Saint Peter's Basilica and the Sydney Harbor Bridge, virtually eliminating suicide.

The Psychiatric Foundation of Northern California has been working since Spring 2004 to erect a barrier and stop the two per month fatalities.

The campaign is a significant one. Suicide is the 10th leading cause of mortality nationally, and number three among 15-24 year olds. We know that suicide is most often an impulsive time-limited acute response to overwhelming psychic pain. Numerous studies (see Literature References) link impulsivity to suicide.

Our work has focused on educating the public about the nature of suicide. We will address such misconceptions as suicidal individuals going elsewhere if taken from the bridge, that suicidal individuals are exercising free will, and that they are all mentally ill. We will also address the public concern with esthetics and cost.

Kevin Hines, who survived a 2000 jump from the Golden Gate Bridge, will tell his story.

**REFERENCES:**

1. Journal Article - Jollant, F et al: Overview: Impaired decision making in suicide attempters. *Am J Psychiatry* 162:304-310, February 2005.
2. Journal Article - Prevost, C et al; Overview: Suicides associated with the Jacques Cartier Bridge, Montreal, Quebec 1988-1993: descriptive analysis and intervention proposal. *Can J Public Health*. 1996 Nov-Dec;87(6):377-80.

**COMPONENT WORKSHOP 22****YOU CAN BE LEADERS TOO: A WORKSHOP FOR IMGs AND MINORITIES****APA Committee on International Medical Graduates**

*Chairperson:* Josie L. Olympia, M.D., *Buffalo Psychiatric Center, Staff Growth and Development, 400 Forest Avenue, Buffalo, NY, 14213*

*Presenters:* Sanjay Dube, M.D., Albert C. Gaw, M.D., Rodrigo A. Munoz, M.D., Annela B. Primm, M.D., Francis M. Sanchez, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this workshop, the participants should be able to identify problems in the career path of IMG's and Minorities and through interactive discussion with those who have achieved success, learn how barriers can be overcome and become leaders in their fields.

**SUMMARY:**

Although many IMGs and minority psychiatrists have achieved success, they remain underrepresented in academia, APA, major organizations and other positions of leadership. The IMG committee has been tasked to look into this issue and develop ways to promote leadership among its ranks. This workshop is one of the methods to

address this need. In this workshop we will identify possible obstacles in becoming leaders as well as discuss current opportunities. The panel, which consist of individuals who have "made the grade" will share their experiences and engage the audience in finding solutions and creating initiatives that will help IMGs and minority psychiatrists advance their career and achieve success.

To make the workshop more interactive and interesting, typical scenarios will be presented by the IMG committee members and role played.

**REFERENCES:**

1. *Becoming a Physician: Coming to America-International Medical Graduates in the United States* Mc Mahon G.T. *N Engl J med* 2004;350:2435-2437, Jun 10, 2004. Perspective.
2. *The Quandary Over Graduates of Foreign Medical Schools in the United States* Iglehart J. K. *N Engl J Med* 1996;334:1679-1684. Jun 1996. Health Policy Reports.

**COMPONENT WORKSHOP 23****MANAGED PHARMACY AND PAY FOR PERFORMANCE: THE NEW MANAGED CARE  
APA Committee on Managed Care**

*Chairperson:* Paul H. Wick, M.D., *Trinity Clinic, Psychiatry, 3300 South Broadway Avenue, #102, Tyler, TX, 75701-7849*

*Presenters:* Carol L. Alter, M.D., Gregory G. Harris, M.D., David K. Nace, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to: 1) effectively deal with pharmacy benefit programs that impact both private health plans and Medicare D populations; 2) understand innovative pay-for-performance proposals; and 3) advocate for fairness and transparency in these new managed care agendas.

**SUMMARY:**

This workshop, presented by members of the Committee on Managed Care, will cover the new developments in the management of psychiatric practice that are projected to have far reaching effects. Discussions will focus on pharmacy benefit plans, pay-for-performance, and Medicare Part D, and will provide an opportunity for discussion of the quality of care and risk of administrative burdens associated with these developments.

There will be a discussion of "behind the scenes issues" associated with the pharmacy benefit management industry, the use and misuse of the term "evidence-based medicine" by business interests, and suggestions for advocacy strategies associated with psychiatric practice and our patients. There will be an opportunity to discuss experiences with Medicare Part D transition, pharmacy benefit plan issues and new payment schemes.

**REFERENCES:**

1. American Medical Association: *New AMA Principles and Guidelines for Pay-for-Performance*. Chicago, AMA, 2005.
2. *Prescriptions for Progress* (newsletter), April 2005. Minneapolis, The McGraw-Hill Healthcare Information Programs.

**COMPONENT WORKSHOP 24**  
**DOING IT IN PUBLIC: OPPORTUNITIES IN PUBLIC**  
**SECTOR PSYCHIATRY**  
**APA Council on Social Issues and Public**  
**Psychiatry**

*Co-Chairpersons:* Cassandra F. Newkirk, M.D., *GEO Care Inc., Director of Correctional Mental Health Services, 39 Hendrickson Drive, Belle Mead, NJ, 08502*

Matthew O. Hurford, M.D., *Hospital of the University of Pennsylvania, Psychiatry, 332 West Mount Airy Avenue, Philadelphia, PA, 19119*

*Presenters:* Delane E. Casiano, M.D., Jagannathan Srinivasaraghavan, M.D., Debra F. Kirsch, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, participants should be able to describe the differences and similarities of psychiatric practice in private and public sectors. The participant should also be able to describe management techniques that work in the public and private business arena in the delivery of mental health services in a public setting. A resident's perspective on community psychiatry exposure during training will help the participant demonstrate an understanding of training programs that prepare its' residents to practice in the public sector.

**SUMMARY:**

All too often there is a focus on psychiatric practice in the private sector with little attention being paid to practice in the public sector. Subsequently there is a disconnect among psychiatrists regarding the realities of practice in settings they are not familiar with. Those who have worked in both sectors appreciate the similarities as well as the differences. There are various public venues where services are rendered including community mental health centers, homeless shelters, state psychiatric hospitals, academic settings and correctional facilities. It is this diversity of settings that makes public and community psychiatry exciting.

Academic affiliation enhances the image of a state psychiatric hospital and can be beneficial to both institutions. The university gains a great teaching ground for the trainees to see severe and persistent mental illnesses and the hospital will be able to attract academically minded psychiatrists. Further there are opportunities for continuing medical education through the university grand rounds and clinical research.

In addition to addressing the many needs of patients served in the public sector, members of community psychiatry are also faced with the challenge of recruiting future psychiatrists to the field. One approach to this task includes introducing residents to community psychiatry during their training. This task may be achieved by developing partnerships between academic and community mental health centers.

By incorporating community psychiatry rotations into training programs, residents are able to compare and contrast the similarities and differences between the public and private sectors. The emphasis on interdisciplinary teams in the public sector is a specific example of the ways that providers utilize a wide assortment of resources in the community. Through these clinical experiences residents encounter both the difficulties and rewards of community psychiatry. Opportunities for career development are also available in a variety of contexts. Residents often develop relationships with various providers in the public sector and frequently benefit from mentorship by enthusiastic community psychiatrists. Most notably, residents also come to understand that it is possible to integrate their experiences into an exciting career in both academia and public psychiatry. The Public-Private Partnership at a state psychiatric facility in Florida is the first of its kind in the nation. This is another model of providing mental health care in the public sector. This partnership has resulted in unprecedented success for the hospital and the people whom it

serves. The facility is managed and operated by a private for-profit healthcare company in partnership with the state of Florida. Positive outcomes include the design and building of a new hospital, the virtual elimination of seclusion and restraint, a 400% increase in the number of people served, improved recruitment and retention, and excellent consumer and employee satisfaction. The hospital serves as a model and sets the benchmarks for other state hospitals in the country.

**REFERENCES:**

1. McQuiston, HI, RanzJM, Gillig, PM. A: A survey of American psychiatry residency programs concerning education in homelessness. *Acad Psychiatry*:28(2):116-21 2004.
2. Brauzer B., Letley HP, Steinbook R. A module for training residents in public mental health systems and community resources. *Psychiatric Services*. 47(2):192-4, 1996.

**COMPONENT WORKSHOP 25**  
**IT TAKES A VILLAGE: ASSESSING BEHAVIORAL**  
**AND PSYCHIATRIC DISORDERS IN MENTALLY**  
**RETARDED INDIVIDUALS**  
**APA Committee on Developmental Disabilities**

*Chairperson:* Roxanne Dryden-Edwards, M.D., *National Center for Children & Families, 6301 Greentree Road, Bethesda, MD, 20817-336*

*Presenters:* Steve Sugden, M.D., Stephanie Hamarman, M.D., Karen G. Gennaro, M.D., Lee Combrinck-Graham, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to:

1. Recognize how medical problems and reactions to normal life events are often misinterpreted as psychiatric disorders in mentally retarded individuals.
2. Understand the appropriate approach to assessing mentally retarded individuals for psychiatric symptoms and how to distinguish such symptoms from indications of medical problems and reactions to normal life stressors.
3. Appreciate the importance of incorporating the cultural norms of available support systems in caring for mentally retarded persons.

**SUMMARY:**

Disparities in the access to and quality of mental health care for mentally retarded persons are well documented. Besides having less access to care, professionals often misinterpret normal expression and medical symptoms of mentally retarded individuals as symptoms of psychiatric disorders. Such misunderstanding frequently results in inappropriate treatment of mentally retarded people with psychiatric medications, exposing these individuals to distressing side effects and other negative outcomes. This program will provide information on the appropriate assessment of the mentally retarded given the unique myriad of expression of normal emotions and presentation of medical symptoms in this population. The importance of culturally specific involvement of the support systems for these individuals will be described. Dr. Steve Sugden will provide a case presentation of a patient with autism and comorbid anxiety. Dr. Stephanie Hamarman will discuss the appropriate approach to assessing mentally retarded individuals for psychiatric and behavioral symptoms. Dr. Karen Gennaro will describe how to understand some of the unique ways in which medical symptoms may present in mentally retarded persons. Dr. Lee Combrinck-Graham will present ways to understand how mentally retarded people may express normal emotions including expected reactions to certain normal life events. Dr. Roxanne Dryden-Edwards will discuss the importance of using creative, culturally specific methods of involving familial and other support



systems. Each presentation will last 15 minutes, with 30 minutes reserved for audience participation. The audience will be encouraged to participate in this workshop by asking questions and participating in discussion with the presenters.

#### REFERENCES:

1. Harris JC: Intellectual Disability: Understanding its development, causes, classification, evaluation and treatment. New York, Oxford 2005.
2. Prada CD, Zylstra RG: Autism, a medical primer. *American Family Physician* 2002; 66(9): 1667-1674.

#### COMPONENT WORKSHOP 26 MEDIA OUTREACH TO LATINOS: ENHANCING ACCESS AND REDUCING STIGMA APA Committee of Hispanic Psychiatrists

*Co-Chairpersons:* Andres J. Pumariega, M.D., *East Tennessee State University, Psychiatry, 204 McWherter, PO Box 70567, Johnson City, TN, 37614-0567*

Ana E. Campo, M.D., *University of Miami School of Medicine, Psychiatry, 4330 Surrey Drive, Miami, FL, 33133*  
*Presenters:* Gabriella Cora-Locatelli, M.D., Gamaliel Ramos, Lydia Sermons-Ward

#### EDUCATIONAL OBJECTIVES:

Participants in this workshop will:

- 1) Learn about the growing Latino media and its role in educating the Latino community about mental illness and its treatment.
- 2) Learn about the knowledge base and skills needed by psychiatrists seeking to interact with the Latino media and potential roles that they can serve in such collaboration to better serve Latinos.

#### SUMMARY:

The challenge of outreach to diverse populations around mental illness and mental health services calls for the use of unconventional strategies. Some of this needs to occur at the neighborhood and community level, involving critical stakeholders such as primary care physicians, neighborhood leaders, folk healers, and religious leaders. In the case of the Latino population in the United States, one other avenue for outreach is the use of the Spanish-speaking Latino media. This media sector has developed quite extensively in this nation, to the point that Latinos have three television networks, multiple special interest national magazines, and many local newspapers. Unfortunately, some of the coverage of mental health issues in this media market has trended to the sensational, thus further increasing stigma and aggravating problems with access to services. However, some outlets have begun to incorporate a more educational and advocacy approach to mental health topics, often involving Latino mental health professionals on interviews and call-in programs. This workshop will introduce participants to the growing Latino media and its current and potential roles in education and de-stigmatization around mental illness. It will also discuss the topic areas and skills needing to be mastered by psychiatrists dealing with the Latino media (including issues such as de-mystification, culture-bound beliefs and syndromes, access to services, etc.), and roles that psychiatrist can serve as public spokespersons as well as "behind the scene". Perspectives presented by the panelists include those from a national public interest call-in television show, a local health affairs program, and the APA's new Latino Health Initiative.

#### REFERENCES:

1. Lopez, A.G. & Carrillo, E. *The Latino Psychiatric Patient: Assessment and Treatment*. Washington, D.C.: APA Press, 2001.
2. Pumariega, A.J. Cultural Competence in Systems of Care for Children's Mental Health. IN Pumariega, A.J. & Winters, N.C. *Handbook of Community Systems of Care; The New Child &*

*Adolescent Community Psychiatry San Francisco: Jossey Bass Publishers, 2003.*

#### COMPONENT WORKSHOP 27 BUPRENORPHINE: CLINICAL ISSUES AND MANAGING MORE COMPLICATED PATIENTS APA Corresponding Committee on Training and Education in Addiction Psychiatry

*Chairperson:* John A. Renner, Jr., M.D., *Boston University School of Medicine, 251 Caseway Street, Boston, MA, 02114*

*Presenters:* Herbert D. Kleber, M.D., Eric C. Strain, M.D., George Kolodner, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to effectively address more complicated clinical problems in the use of buprenorphine to detoxify, stabilize, and maintain patients with opioid dependence.

#### SUMMARY:

As physicians become more experienced in the use of buprenorphine, clinical problems have begun to emerge for which the literature does not provide adequate guidance. This workshop will provide an opportunity for those clinicians who are already comfortable with the basics of buprenorphine to discuss more advanced problems with other clinicians who have had extensive experience with the medication.

Examples of topics to be explored are:

- Doses and duration for stabilization and maintenance as well as the use of doses that are higher and lower than routinely recommended.
- Psychosocial supports: patterns of use and what has been most useful
- Transfer to buprenorphine from higher doses of methadone
- Pain management: acute and chronic
- Pregnancy: maintenance vs. detox, delivery, neonatal withdrawal, breast feeding
- Withdrawal from maintenance: protocols
- Managing more complicated psychiatric patients
- Who should not be maintained on buprenorphine
- Interface with abstinence organizations such as NA, AA, and treatment programs
- Interactions with the DEA

#### COMPONENT WORKSHOP 28 TEN WAYS TO STAY OUT OF TROUBLE: ETHICS AND ETIQUETTE APA Ethics Committee and APA Ethics Appeal Board

*Chairperson:* Spencer Eth, M.D., *St. Vincent's Hospital and Medical Center, 144 West 12th Street, Room 174, New York, NY, 10011*

*Presenters:* Wade C. Myers, M.D., William Arroyo, M.D., Laura W. Roberts, M.D., Harriet C. Stern, M.D., Scott Y. Kim, M.D., Richard D. Milone, M.D.

#### EDUCATIONAL OBJECTIVES:

Psychiatrists often wonder whether aspects of their clinical practice could raise ethical problems. Other psychiatrists may be conducting themselves in ways that should be cause for concern, but seem unaware. interactive workshop is designed to engage psychiatrists in an open discussion of common situations may signal professional risk. Ten common areas include: confidentiality (e.g. complying with HIPAA & Tarasoff); split therapy (e.g. providing medication management for a non-physician psychotherapist); double agent (e.g.

managing dual loyalty issues in schools, prisons and the military); pharmaceutical industry relationships (e.g. accepting gifts or honoraria from drug companies); speaking to the media (e.g. the "Goldwater Rule"); self-disclosure (e.g. revealing yourself in the materials in your waiting room); boundary violations (e.g. touching patients); informed consent (e.g. telling patients about medication side-effects and off-label uses); fee disputes and fee sharing (e.g. charging for a missed appointment or a lengthy phone call); and coverage arrangements. The audience will be encouraged to present their own hypothetical scenarios for consideration. The workshop panel will be composed of members of the APA Ethics Committee and Ethics Appeals Board

#### SUMMARY:

Psychiatrists often wonder whether aspects of their clinical practice could raise ethical problems. Other psychiatrists may be conducting themselves in ways that should be cause for concern, but seem unaware. This interactive workshop is designed to engage psychiatrists in an open discussion of common situations may signal professional risk. Ten common areas include: confidentiality (e.g. complying with HIPAA & Tarasoff); split therapy (e.g. providing medication management for a non-physician psychotherapist); double agent (e.g. managing dual loyalty issues in schools, prisons and the military); pharmaceutical industry relationships (e.g. accepting gifts or honoraria from drug companies); speaking to the media (e.g. the "Goldwater Rule"); self-disclosure (e.g. revealing yourself in the materials in your waiting room); boundary violations (e.g. touching patients); informed consent (e.g. telling patients about medication side-effects and off-label uses); fee disputes and fee sharing (e.g. charging for a missed appointment or a lengthy phone call); and coverage arrangements. The audience will be encouraged to present their own hypothetical scenarios for consideration. The workshop panel will be composed of members of the APA Ethics Committee and Ethics Appeals Board

#### REFERENCES:

1. Principles of Medical Ethics With Annotations Especially Applicable to Psychiatry.
2. Ethics Primer of the American Psychiatric Association.

#### COMPONENT WORKSHOP 29 ADVANCES IN THE TREATMENT OF INTERPERSONAL VIOLENCE APA Rhode Island Psychiatric Society's Committee on Women

*Chairperson:* Alison M. Heru, M.D., *Butler Hospital / Brown Medical School, 345 Blackstone Boulevard, Providence, RI, 02906-9980*

*Presenters:* Patricia R. Recupero, M.D., Marilyn Price, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participants should be able to

1. define the traditional and modern social and legal contexts within which domestic violence is defined and addressed.
2. describe the current treatment of both perpetrators and victims.
3. describe the history of the assessment and treatment of interpersonal violence in psychiatry, especially studies that show where couples therapy can be used effectively.

#### SUMMARY:

Historically, interpersonal violence in psychiatry has passed through several stages from being overlooked or condoned, to victim protection and identification of the need to treat male batterers, to a more recent controversial position that couples treatment may be of benefit in certain circumstances. This workshop will address three areas: First, we will review the traditional and modern social and legal

contexts within which domestic violence is defined and addressed. Second, the implications for treatment of both perpetrators and victims will be reviewed, focusing on substance abuse treatment and psychiatric therapies. Third, we will review the history of the assessment and treatment of interpersonal violence in psychiatry, with a specific focus on studies that show where couples therapy can be used effectively. A presentation of a study of adjunctive couples treatment for depressed suicidal patients and their partners where interpersonal violence is prominent in the relationship will be reviewed.

#### REFERENCES:

1. Heru AM, Stuart GL, Eyre J, Rainey S, Recupero, PR: Prevalence and Severity of Intimate Partner Violence and Associations with Family Functioning and Alcohol Abuse in Psychiatric Inpatients with Suicidal Intent. *Journal of Clinical Psychiatry* (i).
2. Stuart G, Ramsey S, Moore T, Kahler C, Farrell L, Recupero PR, et al, Reductions in Marital Violence Following Treatment for Alcohol Dependence *Journal of Interpersonal Violence*, October 2003; 18 (10) :1113-1131.

#### COMPONENT WORKSHOP 30 EMPLOYMENT IN THE POST-RESIDENCY YEARS: GETTING WHAT YOU WANT APA Committee of Residents and Fellows

*Chairperson:* William C. Wood, M.D., *Massachusetts General Hospital, Department of Psychiatry, 15 Parkman Street, YCOC-6900, Boston, MA, 02114*

*Presenters:* Jonathan F. Borus, M.D., Robert P. Roca, M.D., Tanya R. Anderson, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participant should be able to describe the most typical job types sought by recent psychiatry residency graduates, to identify the most important factors in conducting a successful job search, to discuss the fundamentals of effective negotiating for a job, and to understand the balance between individual and organizational needs that employers consider when recruiting a clinician.

#### SUMMARY:

The transition from residency to post-residency employment is a process that requires planning, patience, and perseverance. If done well, the search for a "real job" after residency can lead to a practice opportunity that offers professional satisfaction, financial rewards, stability, and personal contentment. If done poorly, a recent graduate can put out a lot of time, energy, and money yet have little to show for the effort. He or she may accept a job which is not a good match or which has terms that do not adequately reflect the job-seeker's qualifications in the marketplace. In this workshop, each presenter/panelist will speak for about 10-15 minutes, followed by a roundtable discussion of the job search process with audience members. Dr. Wood (chair of the APA Committee of Residents and Fellows) will review the types of jobs typically pursued after residency, and the factors affecting the success of a job search. Dr. Borus (chair of psychiatry at the Brigham & Women's Hospital) will discuss the developmental process of transitioning from residency to post-residency practice. Dr. Roca (vice-president and medical director of the Sheppard Pratt Health System) will present the employer's perspective of the job search process. Dr. Anderson (current ECP trustee on the APA Board of Trustees) will talk about her experiences in pursuing and negotiating employment since graduating from residency and fellowship. Our goal is to foster a balanced discussion of how Members-in-Training (MITs) and Early Career Psychiatrists (ECPs) can strive to define and build the careers that they want, with specific consideration for the process of self-evaluation in defin-

ing goals, identifying/pursuing opportunities, and negotiating job offers.

The target audience includes Members-in-Training/residents/fellows, Early Career Psychiatrists, residency training directors, and general psychiatrists.

#### REFERENCES:

1. American Psychiatric Association: Practice Management for Early Career Psychiatrists: A Reference Guide. Washington, DC, American Psychiatric Association Office of Healthcare Systems and Financing, 2003.
2. Mogul KM, Dickstein LJ, eds.: Careers Planning for Psychiatrists. Washington, DC, American Psychiatric Press, Inc., 1995.

#### COMPONENT WORKSHOP 31 CAN WE TALK? A MODEL FOR CONSTRUCTIVE CONVERSATION BETWEEN OPPONENTS AND ADVOCATES OF SAME SEX RELATIONSHIPS APA Corresponding Committee on Religion, Spirituality, and Psychiatry

*Co-Chairpersons:* John R. Peteet, M.D., *Brigham and Women's Hospital, Psychiatry, 75 Francis Street, Boston, MA, 02115*

Allan M. Josephson, M.D., *University of Louisville, Psychiatry, 200 East Chestnut Street, Louisville, KY, 40202-3869*

*Presenters:* Jack Drescher, M.D., Paul Feheley, Chris Ambidge

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the workshop participants should be able to state the positions of those on each side in the debate over homosexuality, and to identify factors conducive to constructive conversation between the opposing sides.

#### SUMMARY:

The APA's recent move to endorse same sex marriage has raised concerns that the decision could alienate traditionally religious APA members. In fact, religious opposition to homosexuality has seldom been addressed by psychiatry in the years following APA's 1973 decision to remove homosexuality from the DSM. On the other hand, there are religious traditions divided about homosexuality that have found ways to understand their differences, discuss them and reach points of consensus. In this workshop, participants on both sides of a several-year dialogue regarding homosexuality within the Anglican Diocese of Toronto will describe their experience of their churches' internal debates. In addition, two psychiatrists will contribute contrasting clinical perspectives. The audience will be asked to contribute suggestions for a having more open and constructive dialogue regarding these sensitive issues.

#### REFERENCES:

1. APA Official Actions: Position statement on therapies focused on attempts to change sexual orientation (Reparative or Conversion Therapies). *Am J Psychiatry* 2000;157:1719-1721.
2. Spitzer RL: Can some gay men and lesbians change their sexual orientation? 200 participants reporting a change from homosexual to heterosexual orientation. *Archives of Sexual Behavior* 2003; 32:403-417.

#### COMPONENT WORKSHOP 32 FROM DIAGNOSIS TO TREATMENT OF INFANTS AND YOUNG CHILDREN APA Corresponding Committee on Infancy and Early Childhood

*Chairperson:* Irene Chatoor, M.D., *Childrens National Medical Center, 111 Michigan Avenue, NW, Washington, DC, 20010-2916*

*Presenters:* Joan L. Luby, M.D., Harry H. Wright, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participants should have a better understanding of the diagnosis of psychopathology in infants, toddlers and preschool children in general. The participants should be able to recognize and treat Infantile Anorexia, Depression in preschool children, and Trichotillomania in toddlers.

#### SUMMARY:

**Abstract:** In recent years experts in the field of infant and preschool psychiatry have presented a number of workshops on the challenges of the diagnosis of psychopathology in infants, toddlers and young children. During the past year, a national Work Group of experts in this field has reviewed the diagnostic criteria of the major psychiatric disorders and examined how they can be applied to this young age group. The Work Group agreed that for several disorders (e.g. mood disorders, anxiety disorders and posttraumatic stress disorder) most of the present diagnostic criteria in DSM-IV can be applied to young children when some of the items are modified in their wording or duration of symptoms, whereas some other items do not apply and need to be omitted or substituted by other items which are more developmentally appropriate. However, for some disorders (sleep and feeding disorder) the present diagnostic criteria in DSM-IV were found to be too narrow. Sleep disorder was expanded to two subtypes and feeding disorder to six subtypes.

In this workshop, three presentations will highlight how early diagnosis can lead to effective developmentally designed treatments. First, Dr. Irene Chatoor will explain the diagnostic criteria for Infantile Anorexia, a feeding disorder characterized by poor appetite, food refusal and growth deficiency. Then she will explain a treatment model which focuses on training parents to facilitate internal regulation of eating in accord with hunger and fullness in their anorexic toddlers. Data from a randomized two group treatment study will be presented to highlight the effectiveness of this treatment model. Second, Dr. Joan Luby will present data demonstrating that mood disorders can be identified very early in development as young as age 3. Young children with mood symptoms have associated difficulties in their ability to express, understand and appropriately modulate emotions. Based on the associations between emotional development and early psychopathology, a developmental model of emotional reactivity that integrates and expands upon "emotion dynamic" and "emotional competence" models has been proposed. This model is based on that notion that mood disturbances are related to delays and difficulties in an individual's ability to understand, express and modulate appropriate emotional responses. This model provides key targets for early intervention using a dyadic (caregiver-child) psychotherapy approach. A study design to test the empirical validity and efficacy of this treatment model will be presented. Third, Dr. Harry Wright will focus his presentation on the early diagnosis and treatment of trichotillomania. He will review the literature on the treatment of this disorder in preschool children, and describe the treatment of 30 toddlers with trichotillomania. Since anxiety was a frequent co-morbid characteristic and family stresses, such as parent separation, homelessness, unemployment, and parental illness, were frequently associated with this disorder, the treatment approaches included behavioral and family interventions focused on decreasing child and family anxiety and stress.

In conclusion, early diagnosis and treatment of toddlers and young children is an effective way to help these young children to embark on a different and more adaptive developmental pathway.

#### REFERENCES:

1. Chatoor, I., Ganiban, J., Hirsch, R., Borman-Spurrell, E., & Mrazek, D. (2000), Maternal.
2. Chatoor, I., Hirsch, R., & Persinger, M. (1997b). Facilitating internal regulation of eating: A.

#### COMPONENT WORKSHOP 33 MOVING THE PSYCHIATRIC AGENDA IN THE HOUSE OF MEDICINE APA/AMA Delegation Section Council on Psychiatry

*Chairperson:* Jack S. McIntyre, M.D., *Unity Health System, 2000 South Winton Road, Bldg. 4 Suite 303, Rochester, NY, 14618*

*Presenters:* Carolyn B. Robinowitz, M.D., Jeffrey Akaka, M.D., John J. Wernert III, M.D., Karen G. Gennaro, M.D., Nakia G. Scott, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will understand the importance of advocacy within the House of Medicine; be familiar with the organizational structure of the AMA and state medical societies; identify mechanisms for participation in AMA and local medical society affairs; and recognize opportunities and possible barriers for collaborative efforts.

#### SUMMARY:

A close working relationship between the American Psychiatric Association and other organizations within the federation of medicine is necessary to ensure success in our common agenda. For psychiatry to have an impact on the directions, priorities, and actions of our colleagues in the house of medicine, it is important that psychiatrists to understand how local medical societies, and the American Medical Association set policy and priorities. This forum will describe the organizational structure of these groups, outline ways psychiatrists can become involved in influencing policy and lobbying activity, and discuss some effective strategies for collaborative effort. Through the workshop we plan to encourage psychiatrists to become members of the American Medical Association, state medical societies in order to enhance psychiatry's ability to influence policy and lobbying activities within the House of Medicine.

#### REFERENCES:

1. Landerws SH, Sehgal AR: How Do Physicians Lobby Their Members of Congress? *Arch Int Med* 2000; 160: 3248-3251.
2. Crosby M: Political Lobbying for Child and Adolescent Psychiatry. *Child Adoles Psychiatr Clin N Am* 2002; 11(1) 145-58.

#### COMPONENT WORKSHOP 34 EUROPEAN PSYCHIATRY: HEALTH AND MENTAL HEALTH POLICY AFTER THE HELSINKI SUMMIT APA Council on Global Psychiatry and the World Psychiatric Association Conflict Management and Conflict Resolution Section

*Co-Chairpersons:* Eliot Sorel, M.D., *George Washington University, Global Health & Psychiatry, 2121 K Street NW, #800, Washington, DC, 20037*

Rodrigo A. Munoz, M.D., *University of California at San Diego, Psychiatry, 3130 Fifth Avenue, San Diego, CA, 92103*

*Presenters:* Juan J. Lopez-Ibor, Jr., M.D., Sheila Hollins, M.D., Jiri Raboch, M.D., Sass Henning, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participants should be able to:

1. Recognize the importance of national and continental mental policy for services, treatments and research
2. Acquire new skills for working with policymakers
3. Demonstrate enhanced attitudes regarding advocacy for our patients

#### SUMMARY:

The World Health Organization's European office led in the past two years two major initiatives on Mental Health, the Luxemburg meeting on Child and Adolescent Mental Health, in September 2004, and the European Health Ministers meeting in Helsinki in January 2005, making mental health a high priority, developing a mental health agenda for Europe through its *Mental Health Declaration for Europe*, posing new challenges to Society and to European Psychiatry.

"*European Psychiatry: Health and Mental Health Policy after the Helsinki Ministerial Summit*" workshop will address the impact of these challenges from the diverse perspectives of Western European and Central European colleagues, regarding the possible anticipated and unanticipated consequences for research, training, services and mental health care policy in the European Union.

Brief, 15 minutes, presentations from each panelist would address the above stated issues from both the national perspective of each presenter and from that of being a European Union citizen.

There will also be ample opportunities for Q&A with our audience.

#### REFERENCES:

1. WHO Europe, Mental Health Declaration for Europe, [www.euro.who.int/document/mnh/edoc06.pdf](http://www.euro.who.int/document/mnh/edoc06.pdf) 14 January 2005.
2. WHO Europe, Mental Health of Children and Adolescents, [www.euro.who.int/document/mnh/epms04.pdf](http://www.euro.who.int/document/mnh/epms04.pdf) 10 December 2004.

#### COMPONENT WORKSHOP 35 FROM FANTASY TO REALITY: RECRUITMENT OF MINORITIES IN CLINICAL RESEARCH APA Council on Minority Mental Health and Health Disparities

*Co-Chairpersons:* Annelle B. Primm, M.D., *American Psychiatric Association, 1000 Wilson Boulevard, Arlington, VA, 22209*

Sanjay Dube, M.D., *Eli Lilly & Company, Lilly Corporate Center, Indianapolis, IN, 46285*

*Presenters:* Darlene Nipper, Christopher Edwards, Ph.D., Basil D. Halliday, M.S.C., William Waggoner, Ph.D.

#### EDUCATIONAL OBJECTIVES:

demonstrate knowledge of the main barriers to minority participation in clinical research; list potential strategies for maximizing minority participation in clinical research

#### SUMMARY:

There is a paucity of data on treatment efficacy and outcomes amongst minority patients. Typical clinical trials have minimal numbers of minority participants that precludes subanalyses of outcomes within this group. This workshop will present 4 different strategies to increase minority participation in research. First, a minority patient will discuss barriers to minority research participation that include mistrust, fear exploitation and adequate information about risks related to research procedures. She will also provide strategies that investigators could utilize to maximize recruitment and discuss the dos and dont's of minority recruitment. Family and supports could be used to enhance retention and reduce attrition in trials. Another

perspective that will be discussed includes proactive steps that could be taken prior to embarking on trials that involve establishing relationships with the community from which to recruit and soliciting their input into the study design. Education about the disorder to patients and understanding of patient expectations and or needs are investments that need to be made well in advance in order to ensure successful completion of studies. Thirdly, given that minority physicians are likely to take care of minority patients, developing a pool of community based minority psychiatrists holds promise to maximize minority participation in clinical trials. A potential barrier is lack of research infrastructure in their practices. A model to equip minority investigators with the infrastructure and technical support necessary to conduct clinical research will be discussed. Finally, a model for a multicultural IRB will be presented. This will serve to safeguard patient safety and reduce the risk of any exploitation of minority subjects.

#### REFERENCES:

1. Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, Transforming Mental Health Care in America. Federal Action Agenda: First Steps. DHHS Pub. No. SMA-05-4060. Rockville, MD 2005.
2. U.S. Department of Health And Human Services, Mental Health: Culture, Race, and Ethnicity. A supplement to Mental Health: A Report of the Surgeon General, 2002.

#### COMPONENT WORKSHOP 36 INTEGRATING EVIDENCE-BASED PSYCHIATRY WITH CLINICAL INTELLIGENCE APA Lifers

*Co-Chairpersons:* Abram M. Hostetter, M.D., 250 Pantops Mountain Road, Apartment 5409, Charlottesville, VA, 22911  
Sheila H. Gray, M.D., *USUHS, PO Box 0612, Palisades Station, Washington, DC, 20016-0612*  
*Presenters:* Carl C. Bell, M.D., James J. Reeves, M.D.

#### EDUCATIONAL OBJECTIVES:

- At the conclusion of this Workshop participants will be able to
1. Comprehend the differences among research evidence, clinical evidence and clinical conviction.
  2. Discuss the interaction of new evidence-based practices with traditional clinical psychiatry.
  3. Identify at least one way to integrate clinical intelligence - what physicians know - and evidence-based practices in teaching the next generation of psychiatrists.

#### SUMMARY:

Evidence-based medicine (EBM) requires clinicians to ground treatment of their patients on the findings of systematic clinical research. In recent years EBM has become linked with appropriate but also inappropriate efforts at cost containment. The rapid expansion of EBM since its introduction in the early 1990s has supported a practice, and reimbursement, climate in which research-based interventions are favored over those that were developed in clinical practice and taught in an oral tradition. In this workshop we shall review briefly the history and core concepts of the clinical intelligence model and those of EBM. We shall then invite participants to consider with us ways in which these apparently disparate approaches may be integrated in psychiatric practice and in the education of the next generation of psychiatrists. We hope that Lifers of the APA and younger members will be able to exchange ideas across the generation divide and help bridge the current gap between these models, creating ways to enhance arguments for appropriate health care in the community. .

#### REFERENCES:

1. Evidence-Based Work Group: Evidence-based medicine: A new approach to teaching the practice of medicine. *JAMA* 268:2420-2425. 1992.
2. Gray SH: Evidence Based Psychotherapeutics. *Journal of the American Academy of Psychoanalysis* 30:3-16. 2002.

#### WEDNESDAY, MAY 24, 2006

#### COMPONENT WORKSHOP 37 DATA COUPLED WITH ADVOCACY SHAPING PUBLIC POLICY APA Illinois Psychiatric Society

*Co-Chairpersons:* Jagannathan Srinivasaraghavan, M.D., *Southern Illinois University, Psychiatry, Choate Mental Health Center, 1000 North Main, Anna, IL, 62906*  
Daniel W. Hardy, M.D., *Loyola University, Psychiatry, 6N171 Glendale Road, Medinah, IL, 60157-9725*  
*Presenters:* Kenneth G. Busch, M.D., Malini Patel, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant will be cognizant of appropriate data collection, engagement and advocacy of stakeholders towards a successful effort at changes in mental health code in Illinois and learn of effecting policy changes in their own jurisdictions.

#### SUMMARY:

Illinois statute dealing with administration of authorized involuntary medications in non-emergency situations was enacted in 1991. A series of studies conducted since 1994 show clear evidence that overwhelming majority of petitions originated from state hospitals and there is wide variation in the number of petitions filed, the numbers granted, denied, the rate of petitions and the percentage of denials in regard to petitions filed for involuntary treatment from the ten state psychiatric hospitals. Further, among the cases reaching the Appellate court, the lower court decisions were reversed in 75% of cases. In some jurisdictions many professionals expressed discontent with the judicial process. Further, Illinois was the only state allowing jury trials for court ordered medications. The number of jury requests among the forensic population of state hospitals increased dramatically in the late 90's, that some patients were waiting for jury trials for months, while increasing morbidity for themselves and creating an unsafe atmosphere for others. Illinois Psychiatric Society spearheaded a mental health symposium inviting judges, states attorneys, defense attorneys, advocacy groups and mental health professionals. Scientific data coupled with our advocacy resulted in recommendations made by the group effected changes in public policy, not only in the elimination of jury trials in such cases but also in defining and refining certain terms to improve the provision of mental health care for patients.

#### REFERENCES:

1. Srinivasaraghavan J, Andrew S, Watkins N, Mahalik A. Variations in Court Ordered Medications in Illinois, USA. XII World Congress of Psychiatry Abstracts Volume 2 PO27-1 page 187.
2. Srinivasaraghavan J. Is there value in allowing Judicial Determination of Right to Refuse Psychotropic Medications by Psychiatric inpatients? Proceedings of the 15th World Congress on Medical Law in Sydney, Australia August 1-5 2004 pages 35-42.

**COMPONENT WORKSHOP 38  
DISASTERS, DISPARITIES, AND CULTURAL  
PSYCHIATRY  
APA/SAMHSA Minority Fellows**

*Chairperson:* Niranjana S. Karnik, M.D., *Stanford University, Child & Adolescent Psychiatry, 401 Quarry Road, Stanford, CA, 94305*

*Presenters:* Nakia G. Scott, M.D., Leah A. Fennell, M.D., Raquel Lugo, M.D., Nisba F. Husain, M.D., Cheryl Y. Salary, M.D.

**EDUCATIONAL OBJECTIVES:**

1. At the end of this presentation, the participant should be able to conduct a cultural formulation of patients affected by disaster.
2. Participants will understand the ways that socioeconomic disparities affect the presentation of psychiatric illnesses.

**SUMMARY:**

A Component Workshop Sponsored by the APA/SAMHSA Minority Fellowship

Recent events have underscored the devastation that disasters, both natural and man-made, can exert on communities. These events also highlight the degree to which socioeconomic disparities persist and have even expanded in the U.S. Most emblematic of this structural violence, is the fact that while individuals with means were able to evacuate the city of New Orleans prior to the arrival of Hurricane Katrina, those of less means were forced to stay in the Superdome, and subsequently suffered to a remarkable extent. The burden of poverty in the U.S. lies disproportionately on minority groups.

Psychiatry has a role to play in highlighting these disparities because these forces produce stressors which put individuals at risk for psychiatric morbidity. Recent studies in the wake of the 9/11 attacks showed that African-American and Latinos are less likely to access psychiatric care despite the availability of free services. This raises the question of whether cultural and/or structural factors may be playing a role in the development of psychiatric disparities.

This workshop examines the ways that disasters interact with disparities through the lens of cultural psychiatry. Beginning with an overview of this topic, a series of presenters with experience working with different ethnic groups in the wake of Katrina and the 9-11 attacks will present individual case studies to highlight the ways that factors affect individuals. Each of the cases will be presented through a DSM-IV cultural formulation to help participants learn how to use this tool to examine these challenging issues.

**REFERENCES:**

1. Farmer P: On Suffering and Structural Violence: A View from Below, in *Social Suffering*. Edited by Kleinman A, Das V, Lock M. Berkeley, University of California, 1997, pp 261-83.
2. Boscarino JA, Galea S, Adams RE, Ahern J, Resnick H, Vlahov D: Mental Health Service and Medication Use in New York City After the September 11, 2001, Terrorist Attack. *Psychiatr Serv* 2004; 55(3):274-283.

**COMPONENT WORKSHOP 39  
DOING MORE WITH LESS: CHALLENGES AND  
REWARDS OF BECOMING A PSYCHIATRIST  
EXECUTIVE  
APA Committee on Psychiatric Administration and  
Management**

*Chairperson:* Sy A. Saeed, M.D., *East Carolina University-Brody School of Medicine, Department of Psychiatric Medicine, 600 Moye Blvd., Suite 4E-102, Greenville, NC, 27834*

*Presenters:* Brian M. Hepburn, M.D., Nalini V. Juthani, M.D., Arthur L. Lazarus, M.D., Shirish V. Patel, M.D., Lydia E. Weisser, D.O.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this session, the participants will be fully aware of the career options for psychiatrist executives, the skills required to become an effective clinical leader, and challenges and rewards that accompany this role.

**SUMMARY:**

Increasingly, psychiatrists are assuming executive roles as health systems consolidate operations and the complexity of care delivery increases. The psychiatrist executive's position may be viewed as the hub around which the many spokes of the wheel of the mental health system turn. The psychiatrist executive is responsible for integrating the needs of the patients and the physicians in the community into the vision, mission and goals of the health system. Psychiatrist executives face a variety of challenges. The critical skills of a successful psychiatrist executive include strong leadership, technical expertise, and management know-how. Managing change has become one of the most critical competencies of psychiatrist executives. Asking to do more with less is a common problem that psychiatrist executives face today. With this predicament come a set of challenges and rewards.

This workshop will take an interactive case consultation approach. Workshop will start with a case presentation followed by brief case-relevant discussions by the faculty. Faculty, representing a broad range of administrative and leadership roles and experiences will facilitate collaborative discussions involving case conceptualization and formulation; problem identification and analysis; and strategies for selecting effective interventions. Participants will be invited to actively participate by sharing their difficult and challenging cases in administrative psychiatry.

**REFERENCES:**

1. Reid, WH; Silver SB (eds). *Handbook of Mental Health Administration and Management*. New York, NY: Brunner-Routledge, 2003.
2. Rodenhauser P (ed). *Mental Health Care Administration: A Guide for Practitioners*. Ann Arbor MI: University of Michigan Press, 2000.

**COMPONENT WORKSHOP 40  
TEACHING THE HISTORY OF PSYCHIATRY TO  
STUDENTS AND RESIDENTS: A WORKSHOP  
DISCUSSION ON CONTENT, METHODS, AND  
IDEALS  
APA Corresponding Committee on History and  
Library**

*Chairperson:* Avram H. Mack, M.D., *Georgetown University School of Medicine, Department of Psychiatry, 3800 Reservoir Road, NW, Room 618, Kober Cogan Building, Washington, DC, 20007*

*Presenters:* Laura D. Hirshbein, M.D., David J. Lynn, M.D.

**EDUCATIONAL OBJECTIVES:**

1. At the conclusion of this presentation the participant should be able to describe the value of teaching the history of psychiatry to trainees.
2. At the conclusion of this presentation the participant should be able to describe methods by which valuable historical content might be placed within student and resident curricula.

**SUMMARY:**

To give attention to psychiatry's past is important for many reasons, and it is apparent that this attention is not occurring in a formal manner in most training programs in North America. The benefits of studying the history of psychiatry may include: enhancement of clinical practice by understanding the clinical and theoretical

perspectives of previous expert clinicians, gaining ideas for theoretical approaches to modern psychiatry, being aware of previous research. Although such content may be taught in the context of a modern issue (e.g. Freud's work in a course on Psychoanalysis), there is rarely time devoted to reviewing psychiatry's past. Should there be whole courses on the history of psychiatry? How would they be structured? Who would teach them? At what level would they be taught? And, the question that transcends all of these formats: What should be the content of such curricula? This workshop is intended as one stage in this committee's ongoing interest in the development of a curriculum in the history of psychiatry. Ideas from historians, educators, and attendees will be discussed and considered.

#### REFERENCES:

1. Fallon BA, Gorman JM. *The New York State Psychiatric Institute: American Psychiatry at the Centennial*. New York, New York State Psychiatric Institute, 1998.
2. Barton WE. *The History and Influence of the American Psychiatric Association*. American Psychiatric Press, 1987.

#### COMPONENT WORKSHOP 41 HOW TO BE A MORE CREATIVE TEACHER: WINNING STRATEGIES FOR RESIDENTS AND FACULTY APA Council on Medical Education and Lifelong Learning

*Co-Chairpersons:* Joan M. Anzia, M.D., *Northwestern University, Psychiatry and Behavioral Sciences, 1115 Forest Avenue, River Forest, IL, 60305-1355*  
Lowell D. Tong, M.D., *University of California at San Francisco, Psychiatry and Behavioral Sciences, 401 Parnassus Avenue, San Francisco, CA, 94143-0984*  
*Presenters:* Joshua T. Thornhill IV, M.D., Theodore B. Feldman, M.D., Margo D. Lauterbach, M.D., Suma Jacob, M.D.

#### EDUCATIONAL OBJECTIVES:

At the end of this workshop, participants will:

- 1) be able to incorporate at least two innovative methods of teaching into lectures, small groups, case conferences, or rounding.
- 2) be able to give and receive feedback about teaching performance.

#### SUMMARY:

At a time when the quality of teaching in psychiatry is more important than ever, and resources are limited, how do you get more "bang for your buck"? How do you keep fun, excitement, and spontaneity in teaching?

Presenters will describe and demonstrate innovative techniques that can be used in a variety of different formats (lectures, small groups, seminars, rounds) with a range of teachers, from residents to senior volunteer and paid faculty. Then workshop participants will have the opportunity to practice novel techniques in a specific teaching task, aided by a surprise "supply toolbox". Participants will have the opportunity to provide feedback to each other and the presenters.

#### REFERENCES:

1. Whitcomb M: More on Medical Education Reform. *Academic Medicine* 2004; 79:1-2.
2. National Research Council: *How People Learn*. Washington D.C., National Academy Press, 2000.

#### COMPONENT WORKSHOP 42 THE NATIONAL HEALTH INFORMATION NETWORK AND PSYCHIATRY: HOW WILL THE COMING NATIONAL ELECTRONIC HEALTH RECORD IMPACT OUR PATIENTS AND OUR PRACTICE? APA Corresponding Committee on Electronic Health Records

*Chairperson:* John J. Boronow, M.D., *Sheppard Pratt Hospital, 11101 Falls Rd, Lutherville, MD, 21093-3725*  
*Presenters:* Zebulon Taintor, M.D., Robert M. Plovnick, M.D., Jerome Rogoff, M.D.

#### EDUCATIONAL OBJECTIVES:

By the end of the presentation participants will be able to:

- 1) Describe the current status and major initiatives of the national EHR movement.
- 2) Describe the current activities of the APA involving EHR and identify resources for learning more about and staying abreast of further developments.
- 3) Make a clinically and legally informed decision about the what, why and how of assigning patient information to an open versus confidential section of an EHR.

#### SUMMARY:

In response to the growing political and consumer demand for electronic health records (EHR), the Secretary of the Department of Health and Human Services released in July 2004 the first outline of a 10-year plan to build a national health information infrastructure in the U.S. This effort has been consolidated under the Office of the National Coordinator for Health Information Technology (ONCHIT), which is funding several large-scale efforts to accomplish this goal. It is important that psychiatrists have an understanding of and contribute to this rapidly accelerating movement, ensuring that concerns such as privacy are addressed while optimizing advantages such as reduction in medical errors, enhanced continuity of care and improved efficiency. This workshop will review the status of the Electronic Health Record movement, privacy and confidentiality issues, and the processes that are being utilized to develop standards and requirements for a nationally interoperable EHR. Participants will be asked to review and/or develop psychiatric "use cases," real-world scenarios that are an effective tool for communicating to clinicians, standardization partners, and vendors the complexities and requirements that are needed for a psychiatry-compatible EHR.

#### REFERENCES:

1. Institute of Medicine: *Key Capabilities of an Electronic Health Record System*. Washington, D.C., The National Academies Press, 2003.
2. *Connecting for Health: Achieving Electronic Connectivity in Healthcare*. New York, NY, Markle Foundation, 2004.

#### COMPONENT WORKSHOP 43 NOVEL CAREERS IN PSYCHIATRY: WOMEN WHO HAVE MADE THEIR OWN WAY APA Committee on Women

*Co-Chairpersons:* Marisa A. Giggie, M.D., *University of Texas, San Antonio, Psychiatry, 935 Lightstone Drive, San Antonio, TX, 78258*  
Melva I. Green, M.D., *Johns Hopkins University Hospital, Psychiatry, 109 Persimmon Circle, Reisterstown, MD, 21136*  
*Presenters:* Deborah Spitz, M.D., Stephanie S. Durruthy, M.D., Molly J. Hall, M.D., Julianne Flynn, M.D., Esther P. Roberts, M.D.

**EDUCATIONAL OBJECTIVES:**

Identify and appreciate creative solutions to professional challenges from the perspectives of pioneers who have built unique careers in psychiatry.

**SUMMARY:**

In training, psychiatrists are exposed to a limited number of career options. Mentors typically represent traditional choices such as academics, private practice or public sector psychiatry. And yet, those who have established non-traditional paths may have knowledge that could help guide colleagues through diverse career challenges. In this interactive roundtable discussion, innovative psychiatrists who have had unusual careers will be interviewed regarding challenges they faced as well as successful strategies developed. Each speaker will present a short biography and answer questions from a moderator and the audience. The personal exploration of their experiences including triumphs and mistakes may offer insights to psychiatrists on all levels.

**REFERENCES:**

1. A Resident's Guide to Surviving Psychiatric Training. Edited by Tonya Foreman-El Masri, M.D. and Leah Dickstein, M.D. Published by APA April 2003.
2. Hardball for Women: Winning at the Game of Business. Pat Heim, PhD and Susan Golant.

**COMPONENT WORKSHOP 44**  
**GLOBAL PSYCHIATRY: ESTABLISHING FORMAL AND INFORMAL MENTAL HEALTH EXCHANGES**  
**APA Council on Global Psychiatry**

*Co-Chairpersons:* Samuel O. Okpaku, M.D., *Meharry Medical College, Psychiatry & Behavioral Sciences, 1005 D.B. Todd Boulevard, Nashville, TN, 37208*  
 William Lawson, M.D., *Howard University Hospital, Psychiatry & Behavioral Sciences, 2041 Georgia Avenue, 5th Floor, Washington, DC, 20060*  
*Presenters:* Mary K. Smith, M.D., Michael A. Hollifield, M.D., Robert Kohn, M.D., Rodrigo A. Munoz, M.D.

**EDUCATIONAL OBJECTIVES:**

This symposium will explore several aspects of international mental health activities in terms of research collaborations, service delivery and international assistance and cooperation.

At the end of the symposium, participants will be more aware of international mental health programs and corresponding opportunities for international cooperation and assistance.

**SUMMARY:**

Students of international and cross cultural health cannot fail to observe the cultural context of psychiatric practices. Furthermore, in spite of the sometimes drastic gaps in resources between poor and rich nations, the lack of parity between physical health and mental health resources and the fact that mental health needs far exceed available resources appear universal.

Against the above background, there are intriguing observations such as the international schizophrenia studies and HIV/AIDS studies which respectively show a better outcome in schizophrenia and great adherence to antiviral treatment in resource poor countries than in resource rich countries.

Additionally increased globalization, information technology and major disasters - man-made and natural - have all contributed in some way to psychiatrists showing interest in other societies and cultures. Hence, some individuals and institutions have set up mutually beneficial linkages outside the United States.

**REFERENCES:**

1. Tackling HIV in Resource Poor Countries - Mukherjee, J., Farmer, PE, Niyizonluiza, D., McCorkle L., Vanderwarker, C., et al (2003). *BMJ*327: 1104-1106.
2. Tackling HIV in Resource Poor Countries - Mukherjee, J., Farmer, PE, Niyizonluiza, D., McCorkle L., Vanderwarker, C., et al (2003). *BMJ*327: 1104-1106.

**COMPONENT WORKSHOP 45**  
**SCHOOL BASED SUICIDE PREVENTION: EVIDENCE-BASED STRATEGIES AND NEW APPROACHES**  
**APA Corresponding Committee on Mental Health and Schools**

*Co-Chairpersons:* Eugenio M. Rothe, M.D., *University of Miami, 275 Glenridge Road, Key Biscayne, FL, 33149-1311*  
 Daniel Castellanos, M.D., *University of Miami, 2801 Ponce de Leon Blvd, Suite 350, Coral Gables, FL, 33134*  
*Presenters:* Alicia A. Munoz, LaShondra T. Washington, M.D.

**EDUCATIONAL OBJECTIVES:**

- 1) The attendee will become current in the epidemiology risk factors of suicide among the U.S. school-age population
- 2) Will learn about the most effective, empirically based prevention strategies
- 3) Will learn about an innovative prevention intervention titled: "When not to keep a secret"

**SUMMARY:**

The suicide rate for white males in the United States is the highest in the world. Suicide also represents an important problem among the younger population. It is the 3<sup>rd</sup>. leading cause of death among 15 to 24 year olds and the 6<sup>th</sup>. Cause of death among 5 to 14 year olds. Suicide rates increase among young people when one such event occurs in a community. This is known as the "contagion effect" and it is particularly relevant among school populations. Suicide rates in the U.S. also differ by ethnicity and socioeconomic class. Children with a family history of suicide or with a past attempt are particularly at risk and approximately 30% of adolescents have attempted suicide prior to hospitalization. The literature supports that the most effective intervention for suicide is prevention and that the most appropriate place for prevention is in the schools.

This workshop will present a review of the current literature on suicide, as well as the prevention strategies that have proven most effective in the school situation. It will also present an innovative prevention initiative consisting of an essay contest for high school students titled: "When not to keep a secret".

**REFERENCES:**

1. Gould M.S., Greenberg T Veitling D.M. (2003). Youth suicide risk and preventive interventions JAACAP 50: RR-22.
2. School health guidelines to prevent unintentional injuries and violence MMRW Recomm. Rep.(2003) Dec.7th. RR-22.

**COMPONENT WORKSHOP 46**  
**A RESEARCH AGENDA FOR DSM-V: MENTAL HEALTH IN THE GAY, LESBIAN, AND BISEXUAL POPULATIONS**  
**APA Committee on Gay, Lesbian, and Bisexual Issues**

*Co-Chairpersons:* Benjamin H. McCommon, M.D., *Columbia University, Psychiatry, 300 Central Park West, Suite 1K, New York, NY, 10024*  
 Jack Drescher, M.D., *420 West 23rd Street, # 7D, New York, NY, 10011-2174*  
*Presenters:* Theodorus G.M. Sandfort, Ph.D., Michael B.



First, M.D., Susan D. Cochran, Ph.D., Serena Y. Volpp, M.D., Robert P. Cabaj, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand the issues involved in creating a research agenda for DSM-V on mental health and gay, lesbian, and bisexual (GLB) populations. This includes what is currently known and what gaps remain in epidemiology, illness course, lifespan development, and sexual orientation issues in people of color.

#### SUMMARY:

In early preparation for the DSM-V, and at APA's behest, several APA components have produced a series of "white papers" outlining a research agenda for revising the diagnostic manual (1). Several of these white papers have focused on the mental health needs of diverse patient populations. Since the 1973 removal of homosexuality (DSM-II) and the 1983 removal of ego-dystonic homosexuality (DSM-III-R), DSM makes little mention of sexual orientation issues and no mention of mental health considerations for gay, lesbian, and bisexual (GLB) populations. To further psychiatrists' cultural competency with these populations, APA has created a task force to develop a research agenda designed to improve the diagnostic and assessment process in GLB populations. Hopefully such assessments will lead to improved treatments as well. Panelists will facilitate an interactive discussion to examine what is currently known about mental health and sexual orientation (2), identify what knowledge gaps exist, and explore ways in which further data can be generated in DSM-V development. Panelists will specifically address the epidemiology of psychiatric disorders in GLB populations (including substance abuse and depressive and anxiety disorders), course of illness (including suicidality), development across the lifespan, and sexual orientation issues in GLB people of color.

#### REFERENCES:

1. Kupfer DJ, First MB, Regier DA (editors): *A Research Agenda for DSM-V*. Washington, DC, American Psychiatric Association, 2002.
2. Cabaj RP, Stein TS (editors): *Textbook of Homosexuality and Mental Health*, Washington, DC, APPI, 1996.

#### COMPONENT WORKSHOP 47 WELCOME TO THE JUNGLE: THE DYNAMICS BETWEEN RESIDENTS AND INDUSTRY APA/GlaxoSmithKline Fellows

*Co-Chairpersons:* Lisa A. Catapano, M.D., *George Washington University, Psychiatry, 1628 Riggs Place NW, Washington, DC, 20009*  
Itai Danovitch, M.D., *Columbia University, Department of Psychiatry, 290 Third Avenue #14A, New York, NY, 10010*

#### EDUCATIONAL OBJECTIVES:

1. Develop a better understanding of the complex dynamics of the interaction between psychiatry residents and industry.
2. Become familiar with the current range of policies governing residents' interaction with industry representatives.
3. Consider a variety of ways to train residents on how to interact productively with industry, including marketing strategies, EBM/critical appraisal of the literature, etc.
4. Contribute to a proposal for guidelines for training residents in this area.

#### SUMMARY:

Few psychiatric residents feel equipped to examine their relationship with the pharmaceutical industry. To make matters more confusing, training program policies vary widely in their stance toward this industry, leading to variability both in resident training and in

evolving individual professional viewpoints (ref. 1). These differences exemplify the challenges of learning to practice medicine in an increasingly complex economic climate.

This workshop, led by the APA/GlaxoSmithKline Fellows, will focus on the relationship between residents and industry, using the pharmaceutical industry as an example, including both anecdotal and evidence-based accounts from the United States and Canada (ref. 2). A participatory discussion will follow, in which presenters and audience members will examine ways to think through the relationship from both theoretical and pragmatic perspectives. The workshop will conclude with a collaborative effort with the audience to identify critical areas of training and advocacy necessary for residents to be effective in an ever-changing business and political environment. Guidelines for training will also be proposed.

#### REFERENCES:

1. Sierles, FS, Brodkey AC, Cleary LM, et al.: *Medical Students' Exposure to and Attitudes About Drug Company Interactions*. *JAMA* 2005; 294(9): 1034-1042.
2. Reidy J: *Hard Sell: The Evolution of a Viagra Salesman*. Kansas City, Andrews McMeel Publishing, 2005.

#### COMPONENT WORKSHOP 48 TRAUMA OF HEARTS AND MINDS: RACISM AND PSYCHIATRY IN THE 21ST CENTURY APA/SAMHSA and APA/AstraZeneca Minority Fellowships

*Co-Chairpersons:* Napoleon B. Higgins, Jr., M.D., *Bay Pointe Behavioral Health Service, Inc., Psychiatry, 1560 West Bay Area Blvd, 110, Friendswood, TX, 77546*  
Jean-Marie E. Alves-Bradford, M.D., *Columbia Presbyterian, Psychiatry, 126 West 118th Street, Apt 1, New York, NY, 10026*  
*Presenters:* Lacresha L. Hall, M.D., Aruna S. Rao, M.D., Eric R. Williams, M.D.,

#### EDUCATIONAL OBJECTIVES:

1. By the end of this workshop the individual will learn how racism affects American society and culture.
2. The participant will recognize historical and current issues regarding race and psychiatry.
3. This workshop will enhance the clinician's knowledge regarding racism and unconscious perceptions or race.

#### SUMMARY:

The purpose of this talk is to present a novel perspective on race in the 21<sup>st</sup> century. We will specifically focus on the history of racism in psychiatry, global perspectives of race and culture, colonialism and slavery, the effect the media has on racial perspectives and helping the psychiatrist become race competent. Currently psychiatry is focusing on cross cultural differences and disparities in treatment, assessment and diagnosis in ethnic diverse groups. What makes this talk unique is that it will distinctively concentrate on how racism affects the mental health of all cultures as well as our unconscious thought processes and stereotyping. This talk will discuss obstacles in seeking treatment such as cultural and language barriers, as well as difficulties in therapeutic alliance between the patient and mental health professionals. By the end of this talk, the participant will know how to identify racism from a historical point of view, how it has impacted our society and how it continues to perpetuate within our culture. We hope that individuals who attend will become more race competent and understanding of multiple view points from ethnic diverse communities.

## REFERENCES:

1. Ziggurats S, Klimidis S, Lewis N.Sc, Stuart G: Ethnic matching of clients and clinicians and use of mental health services by ethnic minority clients. *Psychiatric Services* 2003;54:535-541.
2. Barbarin OA: Coping and resilience: Exploring the inner lives of African American children. *Journal of Black Psychology* 1993;19:478-492.

COMPONENT WORKSHOP 49  
**CURRENT ISSUES IN PSYCHIATRY AND LAW**  
**APA Council on Psychiatry and Law**

*Chairperson:* Paul S. Appelbaum, M.D., *University of Massachusetts Medical School, Psychiatry, 55 Lake Avenue North, Worcester, MA, 01655*

*Presenters:* Howard V. Zonana, M.D., Steven K. Hoge, M.D.

## EDUCATIONAL OBJECTIVES:

At the end of this presentation, participants will be able to identify the advantages and disadvantages of specialized forensic mental health services; to understand the issues raised by psychiatric participation in national security interrogations; and to grasp the policy issues related to voting by people with mental illnesses and cognitive impairments.

## SUMMARY:

The Council on Psychiatry and Law considers the impact of important legal issues on psychiatry and psychiatric patients, and makes recommendations regarding APA positions and actions. In this workshop, Council members will report on several major issues that are currently under consideration. The growing population of mentally ill people in jails and prisons has raised concerns regarding how best to make mental health services available to them after release. Court decisions have required active discharge planning, but many community-based agencies are unfamiliar with the needs of a forensic population and fearful of getting involved with them. Many countries have developed specialized forensic treatment services, but that model is not common in the United States. The advantages and disadvantages of such specialized services will be discussed. A second issue of topical concern to psychiatry has been the involvement of mental health professionals, including psychiatrists, in interrogations of detainees in national security contexts. Issues of contention concern whether psychiatrists have any role in conducting or advising on interrogations, and where the legitimate boundaries of involvement, if any, may end. Analysis is complicated by the "ticking time bomb" dilemma, that is, how to behave when large numbers of people may be endangered by terrorists and psychiatric involvement in interrogating a detainee is requested. The process of developing APA policy on this question will be addressed. Finally, the complicated issues involved in voting by persons with mental illness will be explored. Many states still use archaic languages and concepts to restrict certain classes of people with mental illness, particularly those under guardianship, from having access to the polls, and few efforts are made to encourage voting even among more functional groups. Many election officials assume that people with mental illness are necessarily incompetent to cast a ballot. However, definitions of capacity to vote have been imprecise and probably overbroad. Approaches to defining and determining who is competent to vote will be presented, along with a discussion of policy options for addressing voting by people with mental illness and cognitive impairments. Hot topics that develop in advance of the annual meeting may be addressed as well.

## REFERENCES:

1. Karlawish JH, Bonnie RJ, Appelbaum PS, et al.: Addressing the ethical, legal and social issues raised by voting by persons with dementia. *JAMA* 2004; 292:1345-1350.
2. Mayer J: The experiment. *The New Yorker*, July 11 and 18, 2005.

**MONDAY, MAY 22, 2006**

## ISSUE WORKSHOP 1

**A DIMENSION OF MIND: SIMULATIONS/  
 EMULATIONS OF PSYCHIATRIC SYMPTOMS  
 USING THE PERFORMING ART OF MAGIC**

*Chairperson:* Bruce C. Ballon, M.D., *University of Toronto, Psychiatry, 33 Russell St, Toronto, ON, M5S 2S1, Canada*  
*Presenter:* Ivan Silver, M.D.

## EDUCATIONAL OBJECTIVES:

- 1) To understand the use of magic effects to simulate psychiatric symptoms for experiential learning
- 2) Understand the adult learning and cognitive theories that support these techniques
- 3) How to utilize magic effects in educators' own settings and content areas of expertise

## SUMMARY:

Although techniques have been developed in the past in an attempt to simulate psychiatric symptoms for learners, most have been limited in that the learners always have the knowledge that it is a simulation or the method does not capture the true experience of living with the conditions.

A literature review of psychiatric symptom simulations revealed very little research on simulating cognitive thought process and content experientially. The author proposes a novel approach of using Magic techniques to simulate such experiences with learners. The author will discuss adult educational and cognitive psychological principles that predict and support the assertion that Magic techniques are an effective tool for psychiatric education. Magic techniques will be demonstrated to simulate / emulate psychotic symptoms, anxiety symptoms, and pathological gambling cognitive distortions. Workshop participants will have the opportunity to engage in experiential learning through these techniques and have then given time to reflect on how they can be applied to their own settings.

## REFERENCES:

1. Journal Article - Regehr G, Norman G.: Issues in Cognitive Psychology: Implications for Professional Education. *Academic Medicine* 1996; 71:988-1000.
2. Journal Article - Kapur, S.: Psychosis as a State of Aberrant Salience: A Framework Linking Biology, Phenomenology, and Pharmacology in Schizophrenia. *Am J Psychiatry* 2003; 160:13'23.

## ISSUE WORKSHOP 2

**WHAT DO YOU DO WITH A PATIENT WHO HAS  
 ACCESS TO A GUN?**

*Chairperson:* Donna M. Norris, M.D., *Harvard University, Beth Israel/Deaconess/MMH Department of Psychiatry, Psych & the Law Program 185 Pilgrim Rd Deac 1, Boston, MA, 02215*

*Presenters:* Marilyn Price, M.D., Thomas G. Gutheil, M.D., William H. Reid, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able

1-to understand the relevance of the state and federal firearm statutes and restrictions for their patients.

2-to recognize the responsibilities of the treating clinician as mandated by state and federal firearm laws.

3-to improve their clinical management of patients who have access to firearms

#### SUMMARY:

Persons with mental illness and/or substance abuse are frequently perceived by the public to be dangerous. This workshop will present a review of federal and state statutes which currently regulate the ability of persons with mental illness to purchase, possess, register, obtain licensure, retain, and/or carry a firearm. While there is variability in the statutes, most state statutes contain special provisions affecting patients with mental illness. In many states, there is a mandated role for treating psychiatrists. In some states, psychiatrists may have a responsibility for reporting such gun possession to state justice/police departments. There also may be a statutory role in an appeals process for the return of a firearm. The treating physicians' actions or inactions may result in liability risks. There will be discussion with the audience of the clinical management of patients who admit to having access to firearms and the implications of such patients' disclosure in both the outpatient and in-patient treatment settings.

#### REFERENCES:

1. Norris DM, Price M, Gutheil T, Reid WH. Firearm laws, patients, and the roles of psychiatrists. *Am J Psychiatry* in press.
2. Wallace C, Mullen PE, Burgess P. Criminal offending in schizophrenia over a 25 year period marked by deinstitutionalization and increasing prevalence of comorbid substance use disorders. *Am J Psychiatry*; 2004 161:716-27.

#### ISSUE WORKSHOP 3

### MANAGING COMPLEX COMORBID PSYCHIATRIC AND ALCOHOL USE DISORDERS IN PSYCHIATRIC PRACTICE

#### Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

*Chairperson:* Mark L. Willenbring, M.D., *NIAAA/NIH, Div of Treatment and Recovery Research, 5635 Fishers Lane, Room 2047, Bethesda, MD, 20892*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

- 1) identify, diagnose and assess substance use disorders in patients with psychiatric disorders
- 2) differentiate symptoms caused by psychiatric disorders and those from substance use
- 3) apply disease management strategies to treat substance use disorders in patients with serious mental illnesses

#### SUMMARY:

Psychiatrists frequently encounter substance use disorders (SUD) in patients with serious mental illnesses. At the same time, medical and psychiatric training rarely provides adequate knowledge or skill development to enable psychiatrists to feel comfortable addressing SUD in the context of psychiatric practice. In this workshop, participants will learn practical techniques for screening, assessing, and managing SUD in patients with serious mental illnesses. The new NIAAA Clinicians Guide will serve as a resource and will be distributed to workshop participants. Following an overview of existing research and presentation of a conceptual framework for treating SUD in the context of psychiatric practice, participants will have the opportunity to practice developing treatment plans using struc-

ured case examples. At the end of the workshop, participants should be able to immediately apply newly learned skills to their practices.

#### REFERENCES:

1. Psychiatric care management for chronic addictive disorders: conceptual framework. *Am J Addict.* 2001 Summer;10(3):242-8.
2. Drake RE, Mueser KT, Brunette MF, McHugo GJ.: A review of treatments for people with severe mental illnesses and co-occurring substance use disorders. *Psychiatr Rehabil J.* 2004 Spring;27(4):360-74. Review.

#### ISSUE WORKSHOP 4

### EXTRAPYRAMIDAL SIDE EFFECTS AND TARDIVE DYSKINESIA IN THE ATYPICAL ANTIPSYCHOTIC ERA

*Chairperson:* Thomas E. Hansen, M.D., *Portland VAMC, Oregon Health Sciences University, Psychiatry, 3710 SW US Veterans Hospital Road, Portland, OR, 97239*

*Presenters:* Daniel E. Casey, M.D., Joseph McEvoy, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will know the incidence of acute EPS and TD with use of atypical antipsychotic medication, be able to recognize and manage these disorders, and understand how to consider the risk of EPS in choosing an antipsychotic medication.

#### SUMMARY:

Atypical antipsychotic medications cause fewer acute extrapyramidal side effects (EPSE) than typical antipsychotic medications, and thus should be less likely to cause tardive dyskinesia (TD). Clinicians must still be aware of these side effects because some patients continue to receive typical medications, side effects can persist after switching to atypical medications, and though incidence is reduced, EPSE and TD can occur with use of atypical medications.

In this workshop, the presenters will provide current information about risk of acute EPSE and TD derived from clinical trials, reviews, and use in highly sensitive patients (e.g. with Parkinson's disease). Recognition of EPSE and TD is critical for management, so videotape examples of the syndromes and a videotape on how to do the AIMS exam will be shown. Management of EPS and TD will be reviewed, including current information about use of cholinesterase inhibitors, branched-chain amino acids, and atypical antipsychotics as treatments for TD. Finally, the role of EPSE and TD in choosing an antipsychotic medication in the context of unfolding information about the metabolic side effects of atypical antipsychotic medications will be discussed. The audience will be encouraged to join in this discussion along with asking questions about the material presented.

#### REFERENCES:

1. Kane JM: Extrapyramidal side effects are unacceptable. *European Neuropsychopharmacology* 2001; 11(Suppl 4): S397-S403.
2. Correll CU, Leucht S, Kane JM: Lower risk of tardive dyskinesia associated with second-generation antipsychotics: A systematic review of 1-year studies. *Am J Psychiatry* 2004; 161: 414-425.

#### ISSUE WORKSHOP 5

### NEUROCYBERNETICS: NOVEL APPROACH IN THE TREATMENT OF PSYCHIATRIC DISORDERS

*Chairperson:* Alan L. Summers, M.D., *Kirkbride Center, Department of Psychiatry, 300 Arbor Lane, Ambler, PA, 19002-3600*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to demonstrate a working knowledge of two specific paradigms,

used in the treatment of *Panic Disorder* and *Borderline Personality Disorder*.

#### SUMMARY:

*Introduction:* Cybernetics is the study of how information may be manipulated in order to control the function of a complex system. *Neurocybernetics* pertains to modeling of information flow in the human psyche, *visually*, using flow diagrams of the type commonly used by computer programmers. The 'information', in this instance, includes the interface between *mood, temperament, defense mechanisms, flashbacks*, and medication effect. Particular attention is paid to the correction of aberrant feedback loops that are evident in psychiatric disorders. The proposed model has two levels, on corresponding to *conscious* process, the other, to *unconscious* process.

*Objective:* The model provides a rationale for devising tailored-made strategies for the treatment of emotional illness. Practical applications include paradigms for the treatment of *Borderline Personality Disorder, Panic Disorder, Substance Dependency, Anxiety & Mood Disorder*.

#### REFERENCES:

1. Kernberg OF: *Borderline Conditions and Pathological Narcissism*. New York, Aronson, 1975.
2. Zal HM: Diagnosis, epidemiology and etiology of panic disorder. *Clinical Advances in the Treatment of Psychiatric Disorders* 1995;9(6):2-3.

### ISSUE WORKSHOP 6 TREATMENT OF PREGNANCY-RELATED MOOD DISORDERS: FROM PSYCHIATRY TO PEDIATRICS

*Co-Chairpersons:* Janet A. Martin, M.D., *Cedars-Sinai Medical Center, Psychiatry, 17846 Palora Street, Encino, CA, 9131-3620*

Syed S. A. Naqvi, M.D., *Cedars-Sinai Hospital, Psychiatry, 8730 Alden Drive, Los Angeles, CA, 90048*

*Presenters:* Shari Lusskin, M.D., Vivien K. Burt, M.D., Stephanie M. Stewart, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to diagnose antenatal depression, postnatal depression and postpartum psychosis and be able to outline a treatment plan including the use of medications in pregnancy and lactation.

#### SUMMARY:

Depression is estimated to affect at least 10% of women during pregnancy and in the 3 months post-partum. Depression in pregnancy poses numerous health threats to the mother and fetus, including non-compliance with prenatal care, self-medication with drugs and alcohol, and impairment in maternal-infant bonding. Antenatal depression and postnatal depression also have long-term effects on child development. A small proportion of women develop postpartum psychosis shortly after delivery but some will become psychotic much later, often following an undiagnosed or under-treated postpartum depression. Bipolar disorder dramatically increases the risk for postpartum mood instability and postpartum psychosis. Moreover, psychotic illnesses increase the risks for suicide and infanticide. Treatment for pregnancy-related mood disorders, including pharmacotherapy and psychotherapy, is effective. Unfortunately, there is limited data on the safety of various medications in pregnant and lactating women. In this workshop, physicians from Psychiatry and Pediatrics will present clinical cases and a review of the literature on pharmacotherapy in pregnancy and lactation in order to enable physicians to provide more effective psychiatric care for women in the peripartum period.

#### REFERENCES:

1. Bennett HA, Einarson A, Taddio A, Koren G, Einarson TR: Prevalence of depression during pregnancy: systematic review. [erratum appears in *Obstet Gynecol.* 2004 Jun;103(6):1344]. *Obstetrics & Gynecology* 2004; 103(4):698-709.
2. Yonkers KA, Wisner KL, Stowe Z, Leibenluft E, Cohen L, Miller L, Manber R, Viguera A, Suppes T, Altshuler L: Management of bipolar disorder during pregnancy and the postpartum period. *American Journal of Psychiatry* 2004; 161(4):608-20.

### ISSUE WORKSHOP 7 RISK MANAGEMENT ISSUES IN PSYCHIATRIC PRACTICE

*Chairperson:* Alan I. Levenson, M.D., *75 North Calle Resplendor, Tucson, AZ, 85716-4937*

*Presenters:* Ellen R. Fischbein, M.D., Martin G. Tracy, J.D., Jacqueline M. Melonas, J.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to recognize the major psychiatric professional liability risks that lead to malpractice lawsuits, discuss emerging practice trends that increase malpractice risk and use risk management strategies to decrease major professional liability risks including those related to suicide, prescribing psychotropic medication, supervision, and confidentiality, etc.

#### SUMMARY:

Malpractice suits pose a significant problem for psychiatrists in all practice settings. At least 8% of practicing psychiatrists are sued each year. It is important for psychiatrists to understand the sources of malpractice lawsuits and the malpractice risks they face as clinicians, teachers and administrators. This workshop will present data from the APA-endorsed Psychiatrists' Professional Liability Insurance Program, identifying common sources of malpractice actions against psychiatrists. The nature of malpractice lawsuits will be described and data will be presented on the cause and outcome of such lawsuits. Special emphasis will be placed on high exposure liability cases, patient safety and avoiding medical errors. Specific risk management strategies will be discussed for reducing high risk professional liability exposures. In particular, the workshop will focus on what can be learned from analyzing lawsuits related to patient suicide and adverse events due to prescribing psychotropic medications; two frequent sources of malpractice lawsuits against psychiatrists. Current trends in professional liability risks will also be discussed, e.g., collaborative treatment relationships, "cyberpsychiatry", VNS Therapy, and HIPAA. Participants will have an opportunity to participate in the workshop by discussing malpractice case studies, which will be distributed for review, and through an ample question and answer period.

#### REFERENCES:

1. American Psychiatric Association Practice Guideline for the Assessment and Treatment of Patients with Suicidal Behaviors, *Am J Psychiatry* 2003; 160: Supplement.
2. Hickson GB, Federspiel CF, Pichert JW, Miller CS, Gauld-Jaeger J, Bost P: Patient complaints and malpractice risk. *JAMA* 2002; 287: 2951-2957.

### ISSUE WORKSHOP 8 BUT CAN WE DO IT HERE? CHALLENGES OF IMPLEMENTING A CBT FOR SCHIZOPHRENIA PROGRAM IN THE U.S.

*Co-Chairpersons:* Page Burkholder, M.D., *Kings County Hospital Center, Psychiatry, 451 Clarkson Avenue, Department of Behavioral Health, Brooklyn, NY, 11203*  
Peter J. Weiden, M.D., *SUNY Health Science Center at Brooklyn, Psychiatry, 450 Clarkson Avenue, Box 1203, Brooklyn, NY, 11203*

*Presenters:* David G. Kingdon, M.D., Yulia Landa, Ph.D., Scott Temple, Ph.D., Narisimha R. Pinniniti, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop a participant will be able to identify benefits and roadblocks which may be encountered in trying to introduce a CBT for Schizophrenia program in a USA setting. Included will be possible models for educating service users and staff in the "CBT for Schizophrenia" philosophy and techniques, adapting UK practices and language for North American clients, and an analysis of how the health care systems of the two sites may impact on the implementation of CBT.

#### SUMMARY:

CBT for the treatment of schizophrenia is an accepted approach in the UK, but as yet is virtually unknown in the USA. Given that any psychiatric treatment takes place within the larger context of mental health treatment services, if CBT is to be integrated in the USA it has to be done in a way that is compatible with the mental health system. Several groups have piloted different methods for introducing CBT for schizophrenia in North America. Representatives of some of these programs will present their services in the context of their local health care system, and Dr. David Kingdon will compare and contrast the UK systems and settings with those described for the USA.

#### REFERENCES:

1. Kingdon DG, Turkington D: *Cognitive Therapy of Schizophrenia*. New York, The Guilford Press, 2005.
2. Rector NA, & Beck AT: *Cognitive behavioral therapy of schizophrenia: A preliminary randomized controlled trial*. *Schizophrenia Research* 2001; 63, 1-11.

### ISSUE WORKSHOP 9 RELIGIOUS AND SPIRITUAL ASSESSMENT IN CLINICAL PRACTICE

*Co-Chairpersons:* Francis G. Lu, M.D., *San Francisco General Hospital, Psychiatry, 1001 Potrero Avenue, Suite 7M, San Francisco, CA, 94110*

Christina M. Puchalski, M.D., *George Washington University, George Washington Institute for Spirituality and Health, 2131 K Street, NW, #510, Washington, DC, 20037*

*Presenter:* James L. Griffith, M.D.

#### EDUCATIONAL OBJECTIVES:

*Educational Objectives:* At the conclusion of the workshop, the participant should be able to understand the importance of incorporating history taking and assessment of religious/spiritual issues in clinical work and understand the practical methods of utilizing the assessment in treatment planning.

#### SUMMARY:

According to the APA Practice Guidelines of the Psychiatric Evaluation of Adults and the DSM-IV TR Outline for Cultural Formulation, cultural issues including religion/spirituality should be incorporated in history taking, assessment, and treatment planning. Yet

clinicians may be unfamiliar with methods of religion/spirituality assessments. This workshop will review cases that demonstrate methods of interviewing, assessment, and treatment planning. Participants will be invited to critique and comment on these cases and use them as a stimulus for discussion of their own clinical work. Specific issues discussed will include the importance of respect and rapport, the use of the DSM-IV TR Outline for Cultural Formulation, the DSM-IV TR diagnosis of Religious or Spiritual Problem, the use of religious spiritual consultations and interventions such as with chaplains, and the psychotherapy approaches that incorporate religious and spiritual issues.

#### REFERENCES:

1. Griffith J, Griffith M: *Encountering the Sacred in Psychotherapy: How to Talk with People About Their Spiritual Lives*. New York, Guilford Press, 2001.
2. Josephson A, Peteet J (eds.) *Handbook of Spirituality and Worldview in Clinical Practice*. Washington, DC, American Psychiatric Publishing, 2004.

### ISSUE WORKSHOP 10 EARLY DETECTION AND TREATMENT OF BIPOLAR ILLNESS

*Chairperson:* Eric R. Marcus, M.D., *New York State Psychiatric Institute, Columbia University Department of Psychiatry, 1051 Riverside Drive, #125, New York, NY, 10032*

*Presenters:* Clarice J. Kestenbaum, M.D., Lewis A. Opler, M.D., Ian E. Alger, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participant should be able to recognize, diagnose and develop a comprehensive treatment plan for patients in the earliest phases of bipolar illness.

Each of 4 presenters on diagnosis in children and adolescents, diagnosis in adults with concurrent personality disorders, couple and family treatment, and coordinated pharmacotherapy, will talk for 15 minutes each leaving half an hour for audience questions and discussion.

#### SUMMARY:

This workshop will discuss the early diagnosis and treatment strategies for bipolar illness.

Dr. Kestenbaum will discuss the early signs and symptoms in children and adolescents.

Dr. Marcus will discuss the early signs and symptoms in adults, especially those with concurrent personality disorders.

Dr. Alger will discuss couple and family treatment and its role in concurrent individual treatment.

Dr. Opler will discuss the pharmacological treatment in conjunction with psychotherapy and family therapy.

#### REFERENCES:

1. Marcus, ER. *Psychosis and Near Psychosis: Eto fuction, Symbol structure, Treatment*. Madison, Conn. IUP 2003.
2. Akiskal, H. *Broad Spectrum of Bipolar Illness*. *PsyClinNA* 2000.

### ISSUE WORKSHOP 11 WHAT IS A MOOD STABILIZER?

*Chairperson:* Eduard Vieta, M.D., *University of Barcelona, Hospital Clinic, Villarroel 170 / Rossello 140, Bipolar Disorders Program, Barcelona, 08036, Spain*

*Presenters:* S. Nassir Ghaemi, M.D., Frederick K. Goodwin, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, participants should be able to 1) understand the criteria for an effective mood stabilizer and 2)

use this information to make informed choices when using them to treat their patients.

#### SUMMARY:

**Objectives:** There are a number of ways to define what a mood stabilizer should be, even though the term "mood stabilizer" is not currently recognized as a mode of action by many international regulatory authorities. The regulatory authorities do, however, approve the acute treatment of both mania and bipolar depression, as well as bipolar maintenance treatment or prophylaxis.

**Methods:** Discussion of various definitions of mood stabilizer

**Results:** The strictest criterion that can be used to define a mood stabilizer is one that treats mania and depression, both acutely and preventively. Other less stringent definitions that have been suggested are that a mood stabilizer should help relieve or prevent acute episodes of mania or depression and not worsen symptoms or lead to rapid cycling; that they have a bimodal effect, i.e. with antidepressant and antimanic properties; or that they have efficacy established only in the maintenance phase of bipolar illness. The last definition does not take into account potential treatment-emergent mania or depression. In addition to these criteria, an effective mood stabilizer should also improve the patient's quality of life and have minimal treatment-emergent side effects.

**Conclusions:** The aim of this workshop is to determine whether a general consensus can be reached among clinicians regarding which definition of a mood stabilizer should be collectively adopted, thus allowing them to make informed choices when treating their patients.

Support for this work was provided by AstraZeneca.

#### REFERENCES:

1. Vieta E. Mood stabilization in the treatment of bipolar disorder: focus on quetiapine. *Hum Psychopharmacol* 2005; 20:225-236.
2. Kahn D, Chaplan R. The good enough mood stabilizer: a review of the clinical evidence. *CNS Spectr* 2002; 7:227-230.
3. Ghaemi SN. On defining 'mood stabilizer'. *Bipolar Disorders* 2001;3:154-8.

### ISSUE WORKSHOP 12 REINVENTING CAREERS: TRANSITIONS AND LATER LIFE STRATEGIES FOR PSYCHIATRISTS

**Co-Chairpersons:** Carolyn B. Robinowitz, M.D., *George Washington University, Psychiatry, 5225 Connecticut Avenue, NW, Suite 514, Washington, DC, 20015*  
Abram M. Hostetter, M.D., *Psychiatry, 250 Pantops Mountain Road, Apartment 5409, Charlottesville, VA, 22911*  
**Presenters:** Carol C. Nadelson, M.D., Edward Hanin, M.D., Zebulon C. Taintor, M.D., Joel Yager, M.D.

#### EDUCATIONAL OBJECTIVES:

Participants will become knowledgeable about the aspects of late career development, strategies for remaining generative and stimulated, opportunities and tools to prepare for career transitions.

#### SUMMARY:

It is never too soon to plan for growing older and how to balance work, family, and play. This session addresses later career and later life issues for psychiatrists. How do we re-invent ourselves and our careers as we grow and progress into the end of our work lives. What changes do we seek or avoid? How can we plan to stay stimulated and generative? How do we balance love, work, and play? The first half of the workshop will be presentations by the panelists all of whom have studied aspects of career and personal development; they will present brief personal as well as clinical and theoretical vignettes, discuss balance and directions, as well as provide practical information on opportunities for satisfying career transitions. The second half will be interactive, and there will be ample opportunity for discussion and audience participation. While more specifically

aimed at mid to late career psychiatrists, this workshop will also be of interest to early to mid career psychiatrists as they explore their own career directions and priorities.

#### REFERENCES:

1. Seeman M fScaling Down\$ Washington, Am Journal Psychiatry, 2003 160: 847-849.
2. Sher B fIt's only too Late if You Don't Start Now: How to Create Your Second Life at Any Age\$, Delacorte Press, 1999.

### ISSUE WORKSHOP 13 AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY UPDATE: CERTIFICATION AND MAINTENANCE OF CERTIFICATION IN PSYCHIATRY AND ITS SUBSPECIALTIES

**Chairperson:** Stephen C. Scheiber, M.D., *American Board of Psychiatry and Neurology, 500 Lake Cook Road, Suite 335, Deerfield, IL, 60015-5249*

**Presenters:** Naleen N. Andrade, M.D., Beth Ann Brooks, M.D., Larry R. Faulkner, M.D., Burton V. Reifler, M.D., James H. Scully, Jr., M.D., Daniel K. Winstead, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to describe the American Board of Psychiatry and Neurology's policies and procedures for certification and maintenance of certification in psychiatry and its subspecialties.

#### SUMMARY:

The purpose of this workshop is to present information on the requirements for certification by the ABPN in psychiatry and the subspecialties of addiction psychiatry, child and adolescent psychiatry, forensic psychiatry, geriatric psychiatry, and psychosomatic medicine, as well as clinical neurophysiology and pain medicine. Application procedures, including training and licensure requirements, will be outlined. The content of the Part I (multiple choice), Part II (oral), and subspecialty (multiple choice) examinations will be reviewed. New test administration procedures related to the administration of the multiple-choice examinations in a nationwide network of computer test centers will be delineated. Information on maintenance of certification (recertification) will also be provided, and a substantial amount of time will be available for the panelists to respond to queries from the audience.

#### REFERENCES:

1. Shore JH, Scheiber SC (eds): *Certification, Recertification, and Lifetime Learning in Psychiatry*. Washington, DC, American Psychiatric Press, 1994.
2. Scheiber SC, Kramer TAM, Adamowski s (eds): *Core Competencies for Psychiatric Practice: What Clinicians Need to Know*. Washington, DC, American Psychiatric Press, 2003.

### ISSUE WORKSHOP 14 NEW RESEARCH ADVANCES IN ETHNOPSYCHOPHARMACOLOGY

**Co-Chairpersons:** Pedro Ruiz, M.D., *University of Texas Medical School at Houston, Psychiatry and Behavioral Sciences, 1300 Moursund Street, Suite 102, Houston, TX, 77030*

William B. Lawson, M.D., *Howard University Hospital, Psychiatry, 2041 Georgia Avenue, Howard Univ Hosp /Dept of Psychiatry, 5th Floor, Washington, D.C., DC, 20060*  
**Presenters:** Edmond H. Pi, M.D., Tarek A. Okasha, M.D.

#### EDUCATIONAL OBJECTIVES:

Educational Objective: At the conclusion of this presentation, the participants should be able to know the basis of the field of

ethnopsychopharmacology, should recognize what psychopharmacological agents are more appropriate to use with the different ethnic groups who reside in the United States, and also what doses are more appropriate to use with these different ethnic groups.

#### SUMMARY:

During the last several decades, the United States have experienced a large flux of migrant entering this country from different parts of the world. The largest groups of migrants have come, however, from Mexico and some of the Central American countries such as Salvador, Nicaragua and Guatemala. This huge and recent migratory pattern has converted the United States in a pluralistic and multiethnic society. As a result of this migratory phenomenon, as well as the globalization that has occurred all over the world, the health and mental health system of the United States have changed a great deal in recent years. Now a days, a large number of ethnic groups are being treated in hospitals and clinics in this country, especially in the public sector. New research efforts with these ethnic groups have shown that these different ethnic groups absorb, distribute and metabolize pharmacological agents differently, including psychopharmacological agents as well. In this presentation, we will review the most important findings secured in recent years in this regard. We will also address the clinical implications of these findings, especially from a treatment point of view. The investigational data to be presented and discussed will have a major connotation and relevance *vis-a-vis* the psychopharmacological management of ethnic groups such as Hispanics, African Americans, Asian and Pacific Islanders Americans, Native Americans, and Alaskan Natives. Additionally, we will focus on the most common psychiatric disorders such as schizophrenia and mood disorders *vis-a-vis* these ethnic groups. Hopefully, at the end of this presentation, the participants will be better prepared to provide high quality of psychiatric care to the ethnic minority groups who reside in the United States. The research data presented and discussed will be based on evidence rather than on speculation. We also hope that this presentation will further stimulate research efforts in this very important area of the field.

#### REFERENCES:

1. Book-Ruiz P: Ethnicity and Psychopharmacology. Washington, D.C., American Psychiatric Press, Inc., 2000.
2. Journal Article-Ruiz P: Addressing Culture, Race, & Ethnicity in Psychiatric Practice. *Psychiatric Annals* 2004;34:527-532.

#### ISSUE WORKSHOP 15 ONLINE PEER SUPPORT GROUPS AND SUPPORT GROUP MEMBERS

*Chairperson:* Robert C. Hsiung, M.D., *University of Chicago, Psychiatry, 5737 South University Avenue, Chicago, IL, 60637*

*Presenter:* Kali Munro, M.Ed.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able:

1. To describe how online peer support groups function.
2. To describe how participation in online peer support groups affects members, for better or for worse.

#### SUMMARY:

The Internet empowers patients by connecting them not only to information, but also to each other. This workshop introduces participants to two specific online peer support groups, one small and private, the other large and public. The moderators of the groups explain how the groups function, including what the goals of the groups are, how the group members interact, what topics are discussed, how the moderators moderate, and what the pros and cons of the groups are. The focus of the session, however, is small group

discussion with group members about their experiences with this type of resource. In this workshop, in other words, patients are empowered to teach doctors. All participants then regroup for concluding questions and answers.

#### REFERENCES:

1. Hsiung RC: The best of both worlds: An online self-help group hosted by a mental health professional. *Cyberpsychol Behav* Dec 2000; 3 (6): 935-950.
2. Houston TK, Cooper LA, Ford DE: Internet support groups for depression: A 1-year prospective cohort study. *Am J Psychiatry* Dec 2002; 159 (12): 2062-8.

#### ISSUE WORKSHOP 16 ASSESSMENT OF CAPACITY: DEVELOPMENTS, DVDS, AND DEFENSE ORGANIZATIONS

*Chairperson:* M.E. Jan Wise, M.D., *CNWL NHS Trust, Adult Psychiatry, 13-15 Brondesbury Road, London, NW6 6HX, United Kingdom*

*Presenter:* Julian Beezhold, M.B.

#### EDUCATIONAL OBJECTIVES:

At the end of the workshop participants will be aware of the issues involved in the assessment of capacity, including relevant legal tests.

Participants will have tested that knowledge against video material designed to test understanding of the principles.

Participants will be aware of a variety of tools for improving the assessment of capacity. Participants will gain an understanding of the use and limitations of video material, and its role in risk management in this litigation prone field.

#### SUMMARY:

At the conclusion of this session, the participant will be able to recognise the principles of capacity and informed consent, and their differences. They will be aware of different resources used in the assessment of capacity, and new ideas for recording the information in more defensible formats.

*Aim:* The aim of the workshop is to help participants improve their ability to assess capacity and be aware of relevant tools for aiding decisions regarding capacity and consent.

*Audience:* The workshop is aimed at psychiatrists of all levels. Research has shown that there is room for improving the knowledge of the principles of capacity at all levels of experience from trainee to board registered practitioner.

*Method:* Teaching will be a mix of interactive exercises, demonstrations, presentation, videotaped material, and discussions. Initially participants will view a clinical dilemma and discuss whether capacity is present. A presentation will then inform participants of legal principles.

A second dilemma will allow participants to determine their understanding of the principles. The second case will be used to demonstrate an algorithm, which has been used in multiple jurisdictions for the assessment of capacity. A third dilemma will illustrate the boundaries of tools and involve a group decision.

*Results:* Prior versions of this workshop have doubled assessment accuracy.

*Objectives:* To be aware of the issues involved in assessing capacity, including relevant legal tests. To improve the assessment skills of participants. To learn about resources for assessing capacity and consent.

#### REFERENCES:

1. American Academy of Psychiatry and Law.
2. Informed Consent: Information or Knowledge? *Medicine & Law*. 22(4): 743-50, 2003.

### ISSUE WORKSHOP 17 BIOPSYCHOSOCIAL AND SPIRITUAL ASPECTS OF TREATING OUR PHYSICIAN COLLEAGUES

*Co-Chairpersons:* Monisha R. Vasa, M.D., *Cedars-Sinai Medical Center, Psychiatry, 4505 Colfax Ave., Unit 5, Studio City, CA, 91602*

*Syed S.A. Naqvi, M.D., Cedars-Sinai Hospital, Psychiatry, 8730 Alden Drive, Los Angeles, CA, 90048*

*Presenters:* Michael F. Myers, M.D., Leo L. Gallofin, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants should be able to understand burnout, depression and anxiety in physicians, and ways that psychiatrists can use their training to identify and treat such syndromes in our colleagues.

#### SUMMARY:

Maslach eloquently described burnout as "erosion of the soul." Burnout is a syndrome characterized by emotional exhaustion, decreased personal satisfaction, and a sense of depersonalization in physicians exposed to chronic stress. Personal consequences of burnout include marital difficulties, substance abuse, and the development of depression and anxiety. Physician burnout has also been associated with poor prescribing habits, and increased likelihood of physician error. Depression is just as prevalent in physicians as in the general population; however, physicians have an increased suicide rate compared to the general population, as well as compared to other professionals. As psychiatrists, we are poised in the unique position of understanding the biological, psychological, social, and spiritual factors that affect a physician throughout training and practice. We need to assume a leading role in decreasing stigma associated with mental health care in physicians, and encouraging physicians to receive treatment for burnout and its debilitating consequences. This workshop is intended for all mental health professionals who are involved in the care of physicians. Forty-five minutes will be lecture-based; the remaining forty-five minutes will be reserved for lively interaction with the audience. This section will include case discussions, audiovisual clips, and experiential exercises for the participants.

#### REFERENCES:

- Center, C et al: Confronting Depression and Suicide in Physicians: A Consensus Statement. *JAMA* 2003; 289: 3161-3171.
- Goldman, LS, Myers, M, Dickstein, LJ: *The Handbook of Physician Health: The Essential Guide to Understanding the Healthcare Needs of Physicians*. Chicago, American Medical Association, 2000.

### ISSUE WORKSHOP 18 ORAL BOARDS BOOT CAMP: 2006

*Chairperson:* Elyse D. Weiner, M.D., *State University of New York at Downstate, Psychiatry, 113 University Place, Suite 1010, New York, NY, 10003*

*Presenter:* Eric D. Peselow, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session the participant should be able to begin forming a personal, comprehensive strategy for studying and taking the oral board exam in psychiatry.

*Target Audience:* All oral boards candidates including early career psychiatrists, fellows and residents.

#### SUMMARY:

Now in its third year, Oral Boards Boot Camp is a comprehensive, interactive approach to becoming an effective oral boards candidate. This in-depth strategy for oral boards preparation is continuously

being updated and improved by the chairpersons with a format that incorporates actual advice from past successful candidates. Consistent with the Oral Boards Boot Camp long-term approach, we invite all future candidates, no matter how early in their training, to begin working on refining their diagnostic interview and familiarizing themselves with the oral boards' requirements. An overview of the entire oral boards preparation process is compactly presented, including a detailed study timeline, how to practice, the interview, fielding questions, how to relate to patients and examiners, travel arrangements, boards courses, how to dress, day of the exam, reasons for failure and updated information on the possible replacement of the video portion with vignettes. The goal of Oral Boards Boot Camp is to help candidates begin developing an individual long-term training framework that they will further expand. Through lively discussion, future examinees will be on the road to increased confidence and decreased anxiety as they begin to define their own oral boards study experience and refine their diagnostic interview technique.

#### REFERENCES:

- Morrison J, Munoz RA: *Boarding Time: A Psychiatry Candidate's New Guide to Part II of the APBN Examination, Third Edition*. Washington DC, American Psychiatric Press, 2003.
- Strahl NR: *Clinical Study Guide for the Oral Boards in Psychiatry, Second Edition*. Washington DC, American Psychiatric Press, 2005.

### ISSUE WORKSHOP 19 THE OTHER DESPERATE HOUSEWIVES: HIDDEN VIOLENCE IN THE HOME

*Chairperson:* Susan J. Hatters-Friedman, M.D., *Northcoast Behavioral/ Case Western Reserve University, Psychiatry, 2584 Colchester Road, Cleveland, OH, 44106*

*Presenters:* Renee M. Sorrentino, M.D., Joy E. Stankowski, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will better understand the scope of female violent offenders and risk factors, and appreciate the mental health professional's capacity to intervene or prevent.

*Target audience* for this workshop includes psychiatrists and mental health professionals.

#### SUMMARY:

Violence by women has a considerable impact on American home life. Women, especially when they are the primary caretakers of children, are responsible for a large percentage of child abuse. Less common, but no less destructive, are cases of domestic violence perpetrated by women toward their partners. Demographic and diagnostic factors associated with women as perpetrators will be discussed. Though most homicide is committed by men, perpetrators of filicide (child murder by parents) have a more even sex distribution. In fact, neonaticide (murder of the newborn in the first 24 hours of life) is most frequently perpetrated by women. Common factors will be discussed in a review of maternal neonaticide and filicide. New research involving both intimate partner violence and filicide will be discussed.

Although men commit the majority of sexual offenses, research indicates that females commit approximately 20% of sex offenses against children. Research about female sex offenders, evaluation, pathophysiology, and treatment will be explored. Violent crimes committed by women, including family violence, filicide, and sex offenses, will be discussed in detail. Discussion will be focused upon the mental health professional's role in detection of risk factors and prevention.



## REFERENCES:

1. Friedman SH, Horwitz SM, Resnick PJ: Child Murder by Mothers: A Critical Analysis of the Current State of Knowledge and a Research Agenda. *Am J Psychiatry*. 2005; 162: 1578-1587.
2. Kaplan MS, Green A: Incarcerated female sexual offenders: A comparison of sexual history with eleven female nonsexual offenders. *Sexual Abuse: A Journal of Research and Treatment*, 1995; 287-300.

### ISSUE WORKSHOP 20 TREATING FIRST AND SECOND GENERATION IMMIGRANTS WITH PSYCHOTHERAPY DURING RESIDENCY TRAINING

*Chairperson:* Anu A. Matorin, M.D., *University of Texas Medical School at Houston, Psychiatry, 1300 Moursund, Houston, TX, 77030*

*Presenters:* Andres J. Pumariaga, M.D., Aradhana B. Sood, M.D., Lina M. Lopez, M.D., Ayesha I. Mian, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participants should recognize the unique complexities of learning to do psychotherapy with ethnic minority patients, particularly first and second generation immigrants. Additionally, this workshop will help to develop creative and practical treatment strategies during residency training.

This workshop will follow the APA guidelines. Each panelist will make a brief presentation as outlined above with the goal to stimulate and engage audience participation. The remainder of the time (40 minutes) will be set aside for audience participation and discussion. The audience will be encouraged to share ideas, as well as personal experiences regarding this issue.

## SUMMARY:

Recently, the topic of cultural competency training has become very relevant in the United States. New Jersey became the first state to pass a law requiring physicians to take cultural competency training to be licensed to practice medicine, as well as to help reduce health care disparities among racial and ethnic minorities. It is expected that other states will follow suit in this process. It is imperative that medical educators design and integrate cross-cultural training in their psychotherapy curricula. Training programs must adapt to the increasingly diverse population of the United States. According to 2001 United States census, 11.5% of the total population of the United States is immigrants. In this workshop, we will briefly address two cases, one of a South American patient and the other one of a Pakistani patient treated with individual psychotherapy in the Department of Psychiatry and Behavioral Sciences at the University of Texas at Houston. Special focus will be given to the unique issues and challenges of gaining cultural competency in psychotherapy during residency and the appropriate role of supervision to achieve an optimal learning experience during residency training. Finally, we will promote a productive exchange of ideas with the participants of the workshop.

## REFERENCES:

1. Lo HT, et al: Culturally Competent Psychotherapy. *Can J Psychiatry* 2003; 48(3):161-170.
2. Price EG, et al: A Systematic Review of the Methodological Rigor of Studies Evaluating Cultural Competence Training of Health Professionals. *Acad Med* 2005; 80(6):578-86.

### ISSUE WORKSHOP 21 PHYSICIAN HEAL THYSELF: WORKPLACE BURNOUT AMONG PSYCHIATRISTS

*Co-Chairpersons:* John Sharkey, M.D., *Health and Social Services, Department of Psychiatry, Route De La Hougue Bie, St. Saviour Jersey, JE2 7UW, United Kingdom*  
Steve Choong Kam Chong, M.D., *Worcestershire Mental Health Partnership NHS Trust, Isaac Maddox House, Shrub Hill Road, Worcester, WR4 9RW, United Kingdom*

## EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to appreciate the significant potential for psychiatrists to burnout, to understand how burnout arises and how to reappraise their working patterns in order to prevent deterioration and allow recovery. They will have been exposed to a range of concepts and techniques to consider and discuss which may enable a progressive and pragmatic approach to clinical practise.

## SUMMARY:

Workplace burnout was first described in healthcare professionals in 1973 by Freudenburg. Since then several studies have demonstrated a significant and increasing frequency of burnout among doctors.

In a 2002 study by the College Research Unit of the Royal College of Psychiatrists a random sample of 500 psychiatrists practising in different settings in different parts of the United Kingdom were sent a questionnaire about themselves, their work patterns and measuring their burnout profile using the Maslach Burnout Inventory. These results show that workplace burnout is very common and has demonstrable correlates with work setting and working style. The significance of the conclusions from this research will be discussed.

This study will be described as a platform to the presentation of the characteristics of workplace burnout and the principles underlying their development.

The presenters will provide the audience with opportunities to consider how much burnout affects their lives (and even those of their patients).

A range of concepts and techniques will be discussed that may be of benefit to practising Psychiatrists in the management of their lives at work. These may provide a model for use with patients who experience similar difficulties.

The concepts and techniques will cover personal management and suggestions on interactional approaches that will make the professional lives of participants run more smoothly.

This interactive session will provide plenty of space for questions. Elaboration upon and reframing of ideas will be encouraged in order to deepen understanding of the concepts and provide insights into the challenges of clinical practise.

## REFERENCES:

1. Mears A et al: Consultant psychiatrists' working patterns: is a progressive approach the key to staff retention? *Psychiatric Bulletin* (2004) 28: 251-253.
2. Maslach C, Leiter L: *The Truth about Burnout: How organisations cause personal stress and what to do about it.* San Francisco, CA, Jossey-Bass, 1997.

### ISSUE WORKSHOP 22 PSYCHOTHERAPY TRAINING AND INTERNATIONAL MEDICAL GRADUATES: THE INFLUENCE OF CULTURAL FACTORS

*Chairperson:* Nyapati R. Rao, M.D., *State University of New York, Downstate Medical Center, 450 Clarkson Avenue, Box 1203, Brooklyn, NY, 11203*

*Presenters:* Jerald Kay, M.D., Stephen M. Goldfinger, M.D., Michael D. Garrett, M.D., Damir Huremovic, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this workshop, the participants will have a heightened awareness of how cultural factors influence the psychotherapy learning process of IMGs and they will be able to use this understanding to develop more effective training strategies for IMGs.

**SUMMARY:**

The ACGME required that psychiatry residents must demonstrate competence in five types of psychotherapy (Brief, Supportive, Psychodynamic, CBT and Combined therapies) to graduate from residency training and in the current review of special essentials for Psychiatry, this issue is being closely debated by the training community. In this context, it is germane to examine the residents' receptivity to learning psychotherapy. This is important because 45% of current psychiatry residents are International Medical Graduates (IMGs) who come from cultural backgrounds vastly different from those born and raised in the US. The theory and practice of psychotherapy is very much influenced by the values of the culture it emanates from, and, the American cultural values underlying psychotherapy practice and training may engender conflict in IMGs and may effect their learning. In this workshop, intended for educators, practitioners and residents, a national survey of psychiatry residents of their attitudes towards various cultural values that impinge on psychotherapy training will be presented. When a similar workshop with survey results from three training programs in Brooklyn, NY were presented at the APA annual meeting in 2005, it was well received and participants welcomed research on this important issue. Consequently, we have surveyed residents from training programs outside of New York State to obtain a broader sample and we will be sharing this data at this meeting. Using the results of recent survey as a springboard, supervisory and training issues pertinent to psychotherapy education of IMGs will be discussed. The attendees will be encouraged to share their programmatic and individual experiences.

**REFERENCES:**

1. Mellman LA, Beresin E: Psychotherapy Competencies: Development and Implementation. *Academic Psychiatry* 2003, 27:149-153.
2. Wen-Shing Tseng, Strelzer J (Eds): Culture and Psychotherapy: A Guide to Clinical Practice. Washington DC, American Psychiatric Press, Inc., 2001.

**ISSUE WORKSHOP 23**  
**COGNITIVE-BEHAVIOR THERAPY FOR PSYCHOSIS: BASIC TECHNIQUES FOR PSYCHIATRISTS**

*Chairperson:* Shanaya Rathod, M.D., Hampshire Partnership NHS Trust, 37-39 Mulfords Hill, Tadley Hants, RG26 3HX, United Kingdom  
*Presenters:* David G. Kingdon, M.D., Douglas Turkington, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to

1. Understand the basic principles of Cognitive behaviour therapy for psychosis.
2. Understand which of their patients with schizophrenia may benefit from cognitive therapy.
3. Be able to incorporate evidence-based elements of Cognitive Therapy into their work with patients with schizophrenia.

**SUMMARY:**

Cognitive Behaviour therapy (CBT) as an adjunctive therapy for persistent symptoms of schizophrenia is now supported by meta-analyses and approximately twenty two published Randomised con-

trolled trials. Unfortunately, few training schemes exist and consequently trained therapists are rarely available. Psychiatrists may need to consider if they can adapt their practice to incorporate elements of CBT successfully. They can build on general psychiatric engagement, assessment and formulation skills with a particular focus on the first episode of psychosis and its antecedents. General understanding of cognitive therapy processes and ways of working can be adapted. Specific work on voices, visions, delusions, thought disorder and negative symptoms can then be incorporated within the framework of identified clinical groups in clinic, community and inpatient settings. CBT compliments medication management by assisting with understanding and improving compliance with treatment and also the delusional elaboration sometimes associated, or simply faulty assumptions about the function and purpose of medication. It is also valuable in eliciting risk issues through its ways of drawing out connections between thoughts, feelings and actions, for example, in relation to passivity or command hallucinations. The workshop will use key strategies, case examples, video-interviews and allow plenty of opportunity for discussion.

**REFERENCES:**

1. Kingdon, D.G., Turkington, D: A Casebook Guide to Cognitive Behaviour Therapy: practice, training and implementation. Chichester: Wiley, 2002.
2. Kingdon, D.G., Turkington, D: Treatment Manual for Cognitive Behaviour Therapy of Schizophrenia and Psychotic Symptoms. Series Editor: J. Persons; NY: Guilford, 2004.

**ISSUE WORKSHOP 24**  
**DOES BEAUTY EQUAL HAPPINESS?**

*Co-Chairpersons:* Stephanie M. Stewart, M.D., Cedars-Sinai Medical Center, Psychiatry, 8730 Alden Drive, W101, Los Angeles, CA, 90048  
 Alicia R. Ruelaz, M.D., Cedars-Sinai Medical Center, Psychiatry, 8700 Beverly Blvd, 8th floor, Room 86, West Hollywood, CA, 90048-1804  
*Presenters:* Norana I. Caivano, M.D., Tara Klein, M.D., Suzanne Hollingshead, B.A., Jennifer McLain, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to more effectively determine which patients will optimally benefit from cosmetic or aesthetic enhancing interventions, based upon their clinical picture and individual psychopathology. This will ensure more positive emotional outcomes for patients who are seeking to improve their self esteem and body image.

**SUMMARY:**

There are those who assume, "If I look better I'll feel better" but is there truth to this belief? This workshop's objective is to equip the psychiatrist with the evidence-based data available, regarding aesthetic enhancement in relation to specific psychiatric disorders. It is critical for psychiatrists to guide patients considering appearance enhancement, in the right direction based on scientific data regarding their individual psychopathology. The method utilized for this workshop will consist of a panel of experts in psychiatry and a variety of aesthetic enhancing fields, divided to examine both sides of this issue in a debate format. Psychiatric specialists will be discussing various disorders (e.g. body dysmorphic d/o, anorexia and bulimia nervosa, and mood disorders) that may be either exacerbated, or improved by appearance enhancement. A plastic surgeon, professional make-up artist, fashion stylist, cosmetic dermatologist and a model/patient will join them in the debate and share personal experiences with beauty enhancement and its outcomes. The audience will be engaged in both sides of the discussion in a lively wrap-up period. In conclusion, psychiatrists can help insure positive outcomes for

patients with issues related to self-esteem and body image, by understanding the effects of aesthetic enhancement on various patients, and directing them according to the evidence available. Psychiatry works in this instance, to distinguish those who may gain happiness through cosmetic enhancement and those who would benefit more from a therapeutic search within.

#### REFERENCES:

1. Journal Article - Sarwer D: Aesthetic Perspectives Regarding Physically and Mentally Challenged Patients. *Plast Reconstr Surg*. 2000; 105: 2255-2256.
2. Journal Article - Fabricatore AN: Health related quality of life and symptoms of depression in extremely obese persons seeking bariatric surgery. *Obes Surg*. 2005; 15:304-309.

#### ISSUE WORKSHOP 25

### ESTABLISHING A WOMEN'S MENTAL HEALTH PROGRAM IN AN ACADEMIC OR PRIVATE SETTING

*Co-Chairpersons:* Catherine A. Birndorf, M.D., *Weill Cornell, 425 East 61st Street, Penthouse Room 1354, New York, NY, 10021*

Nehama Dresner, M.D., *Northwestern Memorial Hospital, One E. Erie #355, Chicago, IL, 60611-3015*

*Presenters:* Margaret Altemus, M.D., Nicole Regent, M.D., Rachel Goldstein, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop presentation, the participant should be able to:

1. Recognize the need for more educational experiences in the field (subspecialty) of Reproductive Psychiatry
2. Conceptualize how to create training opportunities and understand some of the potential problems that may be encountered in establishing training experiences in Reproductive Psychiatry
3. Understand how to integrate research opportunities into training programs
4. Learn about community and professional outreach related to Reproductive Psychiatry.

#### SUMMARY:

Psychiatrists have little in the way of formal training in the field of Women's Mental Health or Reproductive Psychiatry. Broadly speaking, this emerging field can be defined as addressing female-specific aspects of psychiatric treatment from menses through menopause. In the past 10 years, scientific knowledge has advanced significantly with regards to psychiatric illness during pregnancy and postpartum, premenstrual mood disorders, and psychiatric syndromes related to infertility treatment and menopause. In addition, approaches to evaluation and treatment and gaps in knowledge have been outlined in a growing literature. Though progress has been made in this newly conceptualized field, it is still truly in its infancy. Residency training programs rarely offer specific rotations or electives in Reproductive Psychiatry. Workshop leaders will share their experiences in creating training opportunities in both academic and private practice settings. Issues to be addressed will include how to conceptualize and develop a new program, training mechanisms for medical students, resident, fellows, and senior staff, facilitation of research, and problems which may arise along the way - including institutional commitment and constraints, financial and budget concerns, and marketing.

#### REFERENCES:

1. Journal Article - King R, Koopman C, Millis D: Training on Ethnic and Gender Issues in Psychiatry Residency Programs. *Academic Psychiatry* 23:20-29, March 1999.

2. Journal Article - Tinsley JA: What's special about psychiatric subspecialties? *Academic Psychiatry* 28:1-3, March 2004.

#### ISSUE WORKSHOP 26

### SECRETS IN FAMILY THERAPY: TO TELL OR NOT TO TELL

*Co-Chairpersons:* Eva C. Ritvo, M.D., *University of Miami, Psychiatry, 3026 North Bay Road, Miami Beach, FL, 33140*, Michael Hughes, M.D., *University of Miami, Psychiatry, 2801 Ponce De Leon, Coral Gables, FL, 33134*  
*Presenter:* Jon A. Shaw, M.D.

#### EDUCATIONAL OBJECTIVES:

To describe the role of the therapist when treating a couple or family where a "secret" has been kept within a family.

To explore the impact of secrets in a family or in a couple.

To discuss clinical examples and explore why family therapists decided with the family to divulge or keep secrets.

#### SUMMARY:

Many individuals, couples, and families present for treatment with the primary focus being a "secret". Other times, a secret will be divulged in the process of ongoing therapy. Secrets may pertain to current and ongoing situations or facts or information from the distant past. Secrets may involve a wide variety of contents including sexual abuse, infidelity, issues regarding adoption or birth origin, a psychiatric or medical illness in the family and many more. Although much has been written about the impact of secrets in families, less has been written to guide therapists in deciding when and when not to share such hidden information. The workshop will focus on assisting the therapist in this role. The risks and benefits of revealing secrets will be considered. The way previously privileged information can be shared and the timing of the process will be explored. Engaging individuals, couples and families in longer term treatment will be discussed as well as the risk of divulging information in short term therapies when follow up will not be possible.

The workshop will begin with a review of the pertinent literature. Two cases will then be presented. The first case involves the treatment of a young man and his family. The therapist and the patient's family are aware that the young man was sexually abused by a baby sitter when he was 2 years old. The discussion will revolve around whether or not this information should be shared by the family. The second case involves the treatment of an individual who presented with depression and significant marital dissatisfaction. The therapist learns that the patient had an extramarital affair. Although the affair was intense and held significant meaning for the patient, it had ended years ago. The patient and the therapist struggle with whether or not to share the information with the spouse. One case will illustrate how the family and therapist agreed not to share the information and the other case will demonstrate how the information was shared and the subsequent impact on the individual and the couple over time.

Audience participation will be emphasized. Case examples will be elicited from the audience. Different theoretical perspectives such as psychodynamic, cognitive behavioral and interpersonal will be explored. The advantages and disadvantages of different modalities including individual, couple and family therapy will be addressed. The overlap of different modalities will be discussed as well as the role of communication between therapists. In the first case, one therapist functioned as the family therapist and years later, as an individual therapist for the young man. In the second case, the patient was seen individually and simultaneously in couple's therapy with another therapist. Issues of confidentiality and the potential for boundary violations will be discussed within the family and between treating therapists.

## REFERENCES:

1. Book- Ritvo, E., Glick I: Concise Guide to Marriage and Family Therapy. Washington, DC American Psychiatric Publishing, Inc. 2002.
2. Book - Sholevar G P (ed): Textbook of Family and Couples Therapy. Washington DC, American Psychiatric Publishing, Inc. 2002.

## ISSUE WORKSHOP 27

### VIRTUAL REALITY AND VIDEO GAMES IN THE TREATMENT OF MENTAL HEALTH DISORDERS AND ADDICTIONS: AN EVIDENCE-BASED ANALYSIS

*Co-Chairpersons:* William Huang, M.D., *Cedars-Sinai Medical Center, Addiction Psychiatry, 8730 Alden Drive, Thalians W-101, Los Angeles, CA, 90048*  
 Jeffery N. Wilkins, M.D., *Cedars-Sinai Medical Center, Addiction Psychiatry, 8730 Alder Dr, C-301, Los Angeles, CA, 90048*

*Presenter:* Jack Kuo, M.D.

## EDUCATIONAL OBJECTIVES:

Objective: To present an evidence-based analysis of the potential therapeutic benefits and possible risks of virtual reality and videogames.

At the conclusion of this presentation, the participant should be able to:

1. Understand how virtual reality and videogames may be used in a therapeutic context.
2. Understand how cybertherapy may be used to diagnose, treat and provide psychoeducation.
3. Consider cybertherapy treatment by the available evidence-based data.

## SUMMARY:

**Method:** A literature search of MEDLINE, PSYCHINFO and internet search engines performed of articles and presentations from 1979 to 2005 and on-site review of presentations at national meetings including the 2005 Games for Learning Symposium, 2005 Game Developers Conference and Cybertherapy 2004.

**Results:** The term cybertherapy was first coined to describe the use of a psychotherapeutic process online via email, instant messaging or telepsychiatry. Due to recent advances in available technology and associated therapeutic innovations, cybertherapy now involves a diverse array of modalities including virtual reality, cognitive augmentation, adaptive displays, and even videogames as means to enhance the diagnosis and treatment of patients. The potential advantages of such modalities over more traditional approaches include the following: delivery and control of stimuli in an immersive environment and the subsequent capture and analysis of behavior in that environment, increased standardization and validation of methods for assessing complex behaviors, more ecologically valid assessment, real-time performance feedback as well as a detailed performance record for review and analysis, and a more effective means of utilizing both embedded and procedural learning. The possible risks of modern cybertherapy include both adverse effects to virtual experiences as well as ethical concerns including the risk of exacerbation of targeted and non-targeted preexisting mental health problems.

**Conclusions:** A review of the cybertherapy literature reveals a contrast between possible risks as well as realized and potential benefits. Cybertherapy offers the potential to improve quality of life via an objective and quantifiable treatment process. Recent advances in cybertherapy may augment traditional therapeutic modalities and contribute to an enhanced understanding of emotional and cognitive development as well as provide an innovative, interactive means of educating, diagnosing, and treating patients.

## REFERENCES:

1. Journal Article - Bordnick P: Evaluating the Relative Effectiveness of Three Aversion Therapies Designed to Reduce Craving Among Cocaine Abusers. *Behavioral Interventions*. Vol 19(1) Feb 2004, 1-24.
2. Journal Article - Wiederhold, B: Virtual reality therapy for anxiety disorders: Advances in evaluation and treatment. Washington, DC, US: American Psychological Association. (2005). viii, 225 pp.

## ISSUE WORKSHOP 28

### MULTIDISCIPLINARY TREATMENT OF ADULTS WITH ASPERGER'S SYNDROME AND RELATED DISORDERS: LESSONS FROM THE UNIVERSITY OF PENNSYLVANIA SOCIAL LEARNING DISORDERS PROGRAM

*Co-Chairperson:* Anthony L. Rostain, M.D., *University of Pennsylvania Health System, Psychiatry, 3535 Market Street, 2007, Philadelphia, PA, 19104*

Edward S. Brodtkin, M.D., *University of Pennsylvania Health System, Psychiatry, 125 South 31st Street, Philadelphia, PA, 19104-3403*

*Presenter:* J. Russell Ramsay, Ph.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will be able to: (1) identify the major features of Adult Social Learning Disorders including Asperger's Syndrome, High Functioning Autism, Pervasive Developmental Disorder Not Otherwise Specified, Nonverbal Learning Disability, and Social Phobia complicated by atypical features, (2) describe a practical clinical approach for discerning the most common co-morbid conditions seen in this population, (3) review common medical and psychosocial interventions that can be helpful with this group of patients, and (4) develop an individualized multi-modal treatment plan that includes patient, family members and key helping professionals.

## SUMMARY:

**Description of Workshop:** Recent clinical advances and new research in the area of developmental disabilities has afforded exciting new opportunities to study and treat social learning disorders in adults. A major new conceptual advance in recent years has been the reclassification of social dyspraxia as a critical aspect of disorders along the autistic spectrum. The Social Learning Disorders Program (SLDP) at the University of Pennsylvania was created to provide clinical care for adults with Asperger syndrome, high-functioning autism, atypical OCD with social anxiety, nonverbal learning disability, schizoid personality disorder and other social communication disorders. This workshop will describe the screening, assessment and intervention approaches that have proven the most effective in treating this challenging population. Clinical assessment tools and neuropsychological screening instruments that are currently used in the SLDP will be reviewed. Specific interventions offered by the SLDP will be described including medication treatment, social skills seminars, cognitive-behavioral therapy and family-focused sessions. Case studies highlighting the impact of multimodal treatment will be presented. Outcomes of treatment including changes in baseline measures of functional status, social cognition, clinical symptoms (e.g. anxiety, depression) and involvement with social networks will be reviewed for a cohort of 50 patients seen in the program over the past two years. Audience members will be encouraged to provide cases for discussion.

## REFERENCES:

1. Howlin P: Outcome in high-functioning adults with autism with and without early language delays: Implications for the different-

ation between autism and Asperger syndrome. *J Aut Dev Disorders* 2993, 33: 3-13.

- Frith U: Emanuel Miller lecture: Confusions and controversies about Asperger syndrome. *J Child Psychol Psychiat* 2004; 45: 672-686.

## TUESDAY, MAY 23, 2006

### ISSUE WORKSHOP 29

#### PHARMACEUTICAL BIAS IN PRESENTATIONS: DO'S AND DON'TS FOR EDUCATORS Association for Academic Psychiatry

*Co-Chairpersons:* Donald M. Hilty, M.D., *University of California at Davis, Psychiatry and Behavioral Sciences, 2230 Stockton Boulevard, Sacramento, CA, 95817*  
Kelli J.R. Harding, M.D., *Columbia University, Psychiatry and Behavioral Sciences, 221 West 21st Street, #5A, New York, NY, 10011*  
*Presenter:* Philip R. Muskin, M.D.

#### EDUCATIONAL OBJECTIVES:

- Be aware of pharmaceutical bias in presentations and learn how to detect it.
- Develop a list of do's and don'ts in making presentations in order to avoid bias and stay within legal guidelines.
- Be aware of resident and other trainees' needs and concerns about bias in their learning and teaching.

#### SUMMARY:

Psychiatric educators and learners face significant challenges from working with pharmaceutical companies. There are benefits and problems in collaborating with the industry. One specific concern is the influence of academic presentations and other marketing on prescribing practices. Participants will be invited to share experiences in which they were concerned about presentations (grand rounds, others) being biased and reasons why this may have occurred. The facilitators will show slides with outright and subtle misinformation, partial truth or ways to frame data to make a point--perhaps at the cost of other important points. They will also prepare and show four 2 to 4-minute videotapes: 1) CME presentation with 10 subtle missteps by the speaker and the audience must detect them 2) after discussion, a good clip of the same CME presentation will be shown 3) a promotional pharmaceutical presentation with 10 missteps for detection by the audience and 4) after discussion, a good promotional presentation clip. The facilitators will review the do's and don'ts of these presentations, both in terms of avoiding bias and staying within Pharma guidelines. The co-chair, a resident, will share a brief review of the literature and the audience will be asked to reflect on how these things affect resident and other trainees' learning and teaching. The workshop will end with a discussion one issue for each participant to "take home", along with questions.

#### REFERENCES:

- Korn D: Industry, academia, investigator: managing the relationships. *Acad Med* 2002;77:1089-1095.
- Johns MME, Barnes M, Florencio PS: Restoring balance to industry-academic relationships in an era of institutional financial conflicts of interest. *JAMA* 2003;289(6):741-746.

### ISSUE WORKSHOP 30 WHEN PSYCHIATRISTS GET CANCER

*Co-Chairpersons:* Michelle B. Riba, M.D., *University of Michigan, Psychiatry, 1500 East Medical Center Drive, Ann Arbor, MI, 48109-0295*

Leah J. Dickstein, M.D., *University of Louisville School of Medicine, Psychiatry, 3006 Dunraven Drive, Louisville, KY, 40202*

*Presenters:* Marian I. Butterfield, M.D., Lawrence Hartmann, M.D., Abigail B. Schlesinger, M.D., Madelaine M. Wohlreich, M.D.

#### EDUCATIONAL OBJECTIVES:

- Understand the barriers for physicians to talk about their medical conditions
- Provide feedback as to suggestions for coping
- Ways to talk to patients about our medical problems

#### SUMMARY:

There are many challenges that face us in our professional and personal lives. One of the intersecting issues arises when we as physicians become patients ourselves. During this important workshop, psychiatrists will share their stories, experiences, dilemmas and special challenges of being a physician and also being a patient. We expect this to be a very interactive conversation with the audience which will lead to ideas and ways that we can better help each other, and ourselves, through adversity. Too often, we keep silent on these types of problems-- which doesn't allow for us to get help, or for others to help us. Our panel members will provide ideas and suggestions as to how we might, as a profession, better manage these types of intersecting problems.

#### REFERENCES:

- Fromme D, Billings JA, Care of the Dying Doctor: On the Other End of the Stethoscope. *JAMA* 290:2048-2055, 2003.
- Beck J, Stewart GM, Poulson J, Bitter Pills to Swallow. *n eNGL j mED* 339: 1863-1863, 1998.

### ISSUE WORKSHOP 31 THE CREATION AND FUNCTION OF A MENTAL HEALTH COURT

*Co-Chairpersons:* Lawrence K. Richards, M.D., *DLFAPA, Chairman, 714 South Lynn, Champaign, IL, 61820*  
Roger Peele, M.D., *George Washington University, Department of Psychiatry, P.O. Box 1040, Rockville, MD, 20849*

*Presenters:* Edward F. Ormston, Richard D. Schneider, Margaret Creal, LL.B., Derek Pallandi, M.D., Sander G. Genser, M.D.

#### EDUCATIONAL OBJECTIVES:

The primary educational objective is for the attendees to learn how Mental Health Courts get formed and then understand their functions; this includes etiological reasons of budgetary, forensic, governmental, mental health, and sociological nature, with major amounts of overlap concerning citizenship, criminalization, decriminalization, and how these evolve into public policy of having these courts. This is achieved by having several very knowledgeable authorities who present just enough to cover the basics and stimulate the audience from their different but coordinated positions and roles, and then are available with great funds of knowledge to respond to the attendees ideas, suggestions, and questions. Active audience participation is expected, as are comparisons between Canadian and U.S. conceptualizations.

**SUMMARY:**

This is the first followup to the successful 2003 San Francisco APA Work/Shop on Discussing Mental Health Courts. This W/S emphasizes how MHCourts get formed and their functions, which differ with locally perceived needs. W/S resources are the MHCourt of Toronto, ON, Canada which began in 1998 and the 2005 MHCourt of Montgomery County, Maryland, USA.

Presenters for Toronto include the Ontario Ministry of the Attny General's Asst. Crown Attny integral to that MHCourt, both that courts' original Justice and it's current defacto administrative Justice, and one of the psychiatrists the Center for Addiction and Mental Health provides.

Presenters for Maryland are the current Chief Psychiatrist of Montgomery County who previously was Director of St. Elizabeth's Hosp., Washington, D.C., and a psychiatrist with NIH's NIDA who works parttime with Montgomery County's patients .

This new MHCourt in Montgomery County evolved as part of a growing trend across the United States to reverse the criminalization of people with psychiatric illnesses through dedicated Mental Health Courts, and a subcategory often called drug court. After the removing of mentally ill from chains, centuries of decriminalization, and more recent years of deinstitutionalization, which in the United States began in the 1960's, there followed a subsequent period of increased family dissolution and expanding drug abuse across the United States. There has been a recriminalization over the past quarter century, leading to psychiatric units at jails and prisons, and various amounts of outpatient care at both, resulting in these facilities being the United States' largest "mental health institutes." Despite provisions "on paper," many of these prison programs are poorly coordinated and not even run by psychiatrists.

The MHCourt of Toronto began in May, 1998, essentially due to a dramatic increase in the number of mentally disordered accused. The Justices will discuss the variety of reasons for this and the development of the court protocol. They will also describe how the plan emerged from meetings with court staff, crown attorneys, defense lawyers, judges, psychiatrists, security, and social workers; this led to cooperative positions of the Ministries of Health and Long-term Care, Attorney General, Solicitor General, Corrections, Community and Social Services, the Metropolitan Toronto Police Services, and the Center for Addiction and Mental Health.

In Canada, only the Crown Attorneys can ask for a treatment order, which essentially represents the interests of the state in making people well. Fitness assessments and the Ontario policy of diversion from criminal proceedings to mental health services are discussed, including the associated public policy and its scope and limits, which kinds of criminal cases can be diverted, and the expanding support given for diversion.

By using one of the newest and one of the oldest MHCourts in North America, this W/Shop reviews aspects of the evolution, successes, and challenges of Mental Health Courts in Canada and the United States and discusses their future directions. Two psychiatrists working with these MHCourts give comment on training, science, and policy approaches encountered through their experiential practical observations.

**REFERENCES:**

1. Arredondo DE, et al: Juvenile mental health court: rationale and protocols. *Juvenile and Family Court Judge* 2001: Fall, pp1-19.
2. Steadman HJ, Redlich AD, Griffin P, Petrila J, Monahan J. From referral to disposition : case processing in seven mental health courts. *Behav Sci Law.* 2005; 23(2): 215-26.

**ISSUE WORKSHOP 32****METABOLIC SCREENING OF PATIENTS ON ANTIPSYCHOTIC MEDICATIONS: DEVELOPMENT OF A QUALITY IMPROVEMENT PROGRAM IN AN URBAN TRAINING CLINIC**

*Co-Chairpersons:* Diane B. Gottlieb, M.D., *Temple University School of Medicine, Psychiatry & Behavioral Sciences, 100 E. Lehigh Ave., Episcopal Hospital, Suite 105 MAB, Philadelphia, PA, 19125*

Karen L. Melendez, M.D., *Temple University Hospital, Psychiatry & Behavioral Sciences, 100 E. Lehigh Ave., Suite 105 MAB, Philadelphia, PA, 19125*

*Presenters:* Aurelia Bizamcer, M.D., Mallika Patri, M.D., Harvinia Gahunia, M.D., Diana Antia, M.D.

**EDUCATIONAL OBJECTIVES:**

At the completion of this workshop participants will be able to recognize the risks of obesity, glucose intolerance, and lipid abnormalities in patients on Antipsychotics and utilize a mechanism to monitor these clinical parameters and make appropriate interventions and referrals.

**SUMMARY:**

Increased awareness of the Metabolic Syndrome, characterized by obesity, the lipodystrophies, and glucose intolerance, has raised concern about the risks of treatment with antipsychotics. These changes may increase mortality in this population. Despite the need for interventions, programs to identify, prevent and treat these disorders have been limited or minimally effective.

We have instituted a quality improvement (QI) program in our inner city University training clinic to identify patients on antipsychotic medication who develop metabolic problems. Our goals are to teach residents to identify these health concerns, train them to monitor these clinical parameters, enhance communication with primary care physicians, and adherence to psychiatric treatment, and ultimately to minimize these disorders in our patients.

During this workshop we will:

1. present a literature review of metabolic problems which occur in patients taking antipsychotic medication
2. discuss the development and implementation of our flow sheet
3. demonstrate the instrument with which we monitor compliance with the use of the flow sheet
4. discuss the results of our chart reviews
5. determine whether patients are being adequately monitored for potential health problems
6. detail the clinical decision making which occurs as a result of abnormal findings

The remainder of the time will be used for an interactive discussion with the audience of the ways in which the use of these monitors will maximize the quality of health care by providing appropriate diagnoses and referrals for patients.

**REFERENCES:**

1. Marder S, Essock S, Physical Health Monitoring of Patients With Schizophrenia. *American Journal of Psychiatry* 2004;161:1334-1349.
2. ADA, APA, Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes. *Journal of Clinical Psychiatry* 2004; 65:2:267 - 272.

### ISSUE WORKSHOP 33 THE DIFFICULT TO TREAT BULIMIA NERVOSA

*Chairperson:* Jennifer L. McLain, M.D., *Cedars-Sinai Medical Center, Psychiatry, 3400 Pacific Ave, Apt. 201, Marina del Rey, CA, 90292*

*Presenter:* Waguih W. Ishak, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to demonstrate knowledge of the factors contributing to the difficulties in treating Bulimia, recognize the current treatment standards, and, use innovative psychotherapeutic and psychopharmacological interventions in bulimia.

#### SUMMARY:

Eating disorders cause immeasurable suffering for victims and families. In the United States, there are an estimated 7 million women and 1 million men with eating disorders; 86% report onset of illnesses by age 20 years, 77% report duration from 1 to 15 years, and 6% of patients with serious cases die due to complications. Cognitive behavioral therapy remains the most validated treatment for bulimia nervosa, and many patients respond adequately. At the same time, there remain a percentage of patients who have treatment-resistant disorders, do not adequately respond to treatment, or are rapidly relapsing. Research has yet to adequately identify subgroups within the population of patients with treatment-resistant illness. Effective interventions have yet to be matched to these potential subgroups. Individualization of treatment is key in order to optimize the response. Discussion about innovative approaches will involve the workshop participants including psychotherapeutic, and psychopharmacological interventions.

#### REFERENCES:

- Walsh BT, Klein DA: Eating disorders. *Int Rev Psychiatry*. 2003;15(3):205-16.
- Faris PL, Kim SW, Meller WH, et al.: Effect of decreasing afferent vagal activity with ondansetron on symptoms of bulimia nervosa: a randomised, double-blind trial. *Lancet* 2000 4;355(9206):792-7.

### ISSUE WORKSHOP 34 INITIATING COUPLES THERAPY TODAY

*Chairperson:* Ian E. Alger, M.D., *New York Weill Cornell, Psychiatry, 500 East 77th Street, Suite 132, New York, NY, 10162-0021*

*Presenter:* Anita Menfi, R.N.

#### EDUCATIONAL OBJECTIVES:

Identify critical issues in couples' therapy, particularly as they emerge in the initial assessment.

Assess which couples may be suitable for couples' therapy.

#### SUMMARY:

Although partners have long faced problems, modern marriage poses particularly complex challenges. Today's marriage has to face current economic and cultural changes, and married partners may have to struggle with dual careers, while at the same time cope with raising their children, as well as often supporting members of their families of origin. Consequently, increasing numbers of couples are turning to therapy to confront the tension and angry disappointments which frequently lead to a blaming and distancing struggle.

By reviewing selected video segments from initial sessions with couples, this workshop will provide a stimulus for the registrants and the presenter to focus on a discussion of critical issues in the process of:

- engaging couples in a therapeutic process

- identifying and modifying dysfunctional patterns of communication and interaction
- identifying the strengths and concerns of each partner.

#### REFERENCES:

- Gurman, A. and Jacobson, N. (2002) *Clinical Handbook of Couple Therapy*, Guilford Press.
- Wannan, G., York, A. Using Video and Role Play to Introduce Medical Students to Family Therapy. *Journal of Family Therapy*, Vol. 27, 3, Aug. 2005, (363-271).

### ISSUE WORKSHOP 35 LEGAL ISSUES IN CONSULTATION-LIAISON PSYCHIATRY

*Chairperson:* Renee M. Sorrentino, M.D., *Massachusetts General Hospital, 25 Staniford St, Boston, MA, 02114*

#### EDUCATIONAL OBJECTIVES:

Target audience for this workshop includes consultation liaison psychiatrists and mental health professionals.

At the conclusion of this workshop, participants will understand the responsibilities of a consultation psychiatrist.

#### SUMMARY:

Consultation liaison psychiatrists frequently encounter clinical situations that have legal implications. This workshop will discuss the most common legal dilemmas faced by consultation psychiatrists and provide suggestions on management. We will discuss capacity evaluations, informed consent, guardianships, against medical advice discharges, confidentiality, restraint in medical units, and malpractice liability for psychiatric consultants.

In the second part of the workshop, the audience will be shown videoclips of clinical vignettes. The audience will be asked to apply the legal concepts reviewed in the workshop. In conclusion, the panel will review the medical legal decisions of the vignettes and point out commonly made errors.

#### REFERENCES:

- Appelbaum PS: Principles of informed consent in psychiatry. Prepared for the APA council on psychiatry and law. May 1995.
- Ganzini L, Volicer L, Nelson WA, Fox E, Derse AR: Ten myths about decision-making capacity. *Journal of American Medical Directors' Association* 2004; 5:278-9.

### ISSUE WORKSHOP 36 COMPULSIVE HOARDING: CONCEPTUALIZATION AND TREATMENT

*Chairperson:* Jose A. Yaryura-Tobias, M.D., *Bio-Behavioral Psychiatry, 935 Northern Boulevard, Suite 102, Great Neck, NY, 11021*

*Presenter:* Fugen Neziroglu, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the end of the workshop, participants will be able to diagnose hoarding, and be able to offer pharmacological and cognitive and behavioral treatment approaches.

#### SUMMARY:

Compulsive hoarding is a complex and often misunderstood disorder. This workshop is presented by the authors of a newly published book on compulsive hoarding, and will help to dispel any confusion related to hoarding. Most clinicians who treat obsessive-compulsive disorder will encounter a good percentage of their patients who are also compulsive hoarders. However, clinicians are often puzzled about the treatment of this disorder. A brief review on the neurobiol-

ogy and cognitive behavioral formulation of the disorder will be presented. This interactive workshop will present both the pharmacological and cognitive behavioral treatment model. Specific cognitive distortions and behavioral strategies for change will be discussed. Additionally, pre and post treatment data and photos will be presented. As an introduction to the workshop a documentary film on hoarding will be viewed by the audience. This documentary presents the life of hoarders and their families. Participants will have ample opportunity to ask questions regarding the film and through role play an opportunity to practice a given session. At the end of the workshop clinicians will have gained a tremendous knowledge on hoarding.

#### REFERENCES:

1. Neziroglu, F., Bublick, J., & Yaryura-Tobias, J.A. (2004) *Overcoming Compulsive Hoarding*. California: New Harbinger.
2. Frost, R.O., and G. Steketee. *Hoarding: Clinical aspects and treatment strategies*. In: *Obsessive-Compulsive Disorder: Practical Management*. Edited by M.A. Jenike, L. Bauer, and W.E. Minichiello. St. Louis: Mosby. 1980.

#### ISSUE WORKSHOP 37 COGNITIVE THERAPY FOR PERSONALITY DISORDERS

*Chairperson:* Judith S. Beck, Ph.D., *University of Pennsylvania/Beck Institute for Cognitive Therapy and Research, One Belmont Avenue, Suite 700, GSB Building, Bala Cynwyd, PA, 190041610*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to conceptualize personality disorder patients according to the cognitive model; improve and use the therapeutic alliance in treatment; set goals and plan treatment for patients with characterological disturbance; enhance medication adherence; and describe and implement advanced cognitive and behavioral techniques.

#### SUMMARY:

Cognitive therapy, a time-limited, structured, problem-solving oriented psychotherapy, has been shown in over 350 trials to be effective in treating Axis I disorders. In the past 15 years cognitive therapy methods have been developed for Axis II disorders and research has verified the utility of this treatment approach. Cognitive therapy for personality disorders requires substantial variation from Axis I treatment. A far greater emphasis is placed on developing and maintaining a therapeutic alliance, modifying dysfunctional beliefs and behavioral strategies, and restructuring the meaning of developmental events.

In this workshop, a variety of case examples of patients with personality disorders will illustrate the principles of cognitive therapy, conceptualization of individual patients, developing the therapeutic relationship, planning treatment, and medication adherence. Roleplays will provide clinicians with demonstrations of how cognitive and behavioral techniques are employed. Questions and clinical material from participants will be encouraged throughout and a final segment will instruct interested participants in the steps they can take to learn about this empirically validated approach for a difficult patient population.

#### REFERENCES:

1. Beck, J.S. *Cognitive Therapy for Challenging Problems*. New York: Guilford, 2005.
2. Beck, A.T., Freeman, A., & Associates. *Cognitive Therapy of Personality Disorders*. New York: Guilford, 2004.

#### ISSUE WORKSHOP 38 EVIDENCE-SUPPORTED, RISK-MINIMIZING, AND COST-CONSCIOUS APPROACHES IN PSYCHOPHARMACOLOGY

*Chairperson:* David N. Osser, M.D., *Taunton State Hospital, 60 Hodges Avenue Extension, Taunton, MA, 02780*

*Presenters:* Andrew A. Nierenberg, M.D., Theo C. Manschreck, M.D., Dan V. Iosifescu, M.D.

#### EDUCATIONAL OBJECTIVES:

Understand some irrational factors in risk-taking in psychopharmacology

Recognize the financial costs of common psychopharmacology regimens

Decide when costs should be taken into consideration when choosing psychopharmacology treatment approaches

#### SUMMARY:

There is an unprecedented amount of questioning of the appropriateness of psychiatrists' psychopharmacology decisions, especially if the decisions involve use of the more costly medications. This workshop will focus on the knowledge base regarding the selection of evidence-supported, risk-minimizing, and cost-conscious approaches. The goal is to enable participants to anticipate the concerns of clinical and fiscal managers, and have a better quality of dialogue with them when dialogue is necessary. The program will begin with a provocative review of some of the psychological factors that lead prescribers to prefer certain drug regimens over others. Participants will gain insight into why some practitioners feel more comfortable, or less comfortable, than they should with taking risks. Then, three presentations will address issues in weighing benefits, risks and drug costs in prescribing for patients with depression, schizophrenia, and bipolar disorder. When options are apparently equivalent in appropriateness, efficacy and safety, but costs are significantly different, it becomes possible to identify potentially more cost-effective strategies. There will be ample time for interaction with the attendees on this controversial topic.

#### REFERENCES:

1. Glimcher PW, Rustichini A: Neuroeconomics: the consilience of brain and decision. *Science* 2004; 306:447-452.
2. Stahl SM: Antipsychotic polypharmacy: squandering precious resources? *J Clin Psychiatry* 2002; 63:93-94.

#### ISSUE WORKSHOP 39 MURDER MYSTERIES, GAMES, AND PSYCHIATRIC EDUCATION: HOW AND WHY TO DO A "WHO DONE IT?"

*Chairperson:* Andrea Waddell, M.D., *Toronto General Hospital, University Health, Psychiatry, 200 Elizabeth Street, 1 Eaton South - Room 565, Toronto, ON, M5G 2C4, Canada*

*Presenters:* Susan Abbey, M.D., Lana M. Benedek, Bruce C. Ballon, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participants should be able to:

1. summarize the educational theory underlying the use of murder mysteries in psychiatric education
2. be able to describe their own direct experience in a murder mystery game
3. have a basic understanding of the practical aspects of constructing and using a murder mystery game in psychiatric education



**SUMMARY:**

The use of games in medical education has received increasing attention. This workshop will include both experiential and didactic components and will introduce participants to the use of a murder mystery as an educational event for continuing professional development. There will be a brief discussion of the theory and practice of developing mystery games and how they may be tailored for undergraduate, postgraduate and continuing mental health education.

**REFERENCES:**

1. Ballon B, Silver I: Context is key: an interactive, experiential and content frame game. *Med Teach* 2004; 26:525-528.
2. Allery LA: Educational gaming and structured experience. *Med Teach* 2004; 26:504-505.

**ISSUE WORKSHOP 40**

**PRACTICAL PHARMACOTHERAPY FOR THE TREATMENT OF ALCOHOL DEPENDENCE**  
**Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

*Chairperson:* Robert M. Swift, M.D., *Brown University, Psychiatry, Box G-BH, Providence, RI, 02912*  
*Presenters:* Roger D. Weiss, M.D., Allen Zweben, D.S.W.

**EDUCATIONAL OBJECTIVES:**

This workshop will improve knowledge about medications used to treat alcohol dependence through an interactive discussion of the practical aspects of using pharmacotherapies for the treatment of alcohol dependence. The audience is encouraged to contribute clinical examples and cases for discussion.

1. Know the available pharmacotherapies available for the treatment of patients with alcohol dependence, their indications, side effects and how to choose the optimal medication.
2. Understand the benefits of combining pharmacotherapy with psychosocial support in enhancing abstinence and preventing relapse.
3. Understand the diagnostic and therapeutic issues (both medication and psychotherapy) with dually diagnosed patients.
4. Enhance knowledge and skills related to improving adherence in combined medication and behavioral treatment for alcohol problems.

**SUMMARY:**

There has been increasing interest in the use of pharmacotherapies for the treatment of alcohol dependence. A compelling rationale for using medications to treat alcohol dependence is that a component of alcohol dependence, like many other psychiatric disorders, has a biological basis that can be addressed pharmacologically. Three medications are now FDA approved for the treatment of alcohol dependence: Disulfiram, naltrexone and acamprosate. While each of these medications shows some evidence for efficacy, medications have not achieved widespread use by clinicians. Surveys indicate that both physicians and non-physician clinicians have limited knowledge about medications used to treat alcohol dependence.

This workshop will address this knowledge gap through an expert discussion of the practical aspects of using pharmacotherapies for the treatment of alcohol dependence.

Evidence will be presented for the effectiveness of pharmacotherapies. Strategies for choosing the optimal medication for particular patients and common side effects will be discussed.

Both epidemiologic and clinical studies have shown a high rate of co-occurrence between alcohol use disorders and psychiatric illness. Patients with this "dual diagnosis" typically have an increased rate of hospitalization, poor adherence to medication, a higher rate of suicidality, and poor outcomes in both substance use and psychiatric functioning. Therapeutic issues (both pharmacologic and psychother-

apeutic) in treating the challenging patient with alcoholism and comorbid psychiatric disorders will be addressed.

There is now strong evidence suggesting that the likelihood of treatment success can be improved by enabling patients to adhere to a medication and treatment regime. The problem of medication adherence will be addressed and methods for optimizing adherence introduced.

This workshop will be highly interactive, with the audience encouraged to contribute clinical examples and cases for discussion.

**REFERENCES:**

1. Weiss, RG. Adherence to Pharmacotherapy in Patients with Alcohol and Opioid Dependence. *Addiction* 2004; 99, 1382-1292.
2. Swift RM: Medications in the treatment of alcohol dependence. In *Handbook of alcoholism treatment approaches: Effective alternatives*, (3d ed.). Edited by R Hester and W Miller, Boston, Allyn & Bacon, 2002.

**ISSUE WORKSHOP 41**

**HOW TO LAUNCH A SUCCESSFUL PRIVATE PRACTICE: PART 1**

*Co-Chairpersons:* William E. Callahan, Jr., M.D., *120 Vantis, Suite 540, Aliso Viejo, CA, 92656*  
 Keith W. Young, M.D., *10780 Santa Monica Boulevard, Suite 250, Los Angeles, CA, 90025-4749*  
*Presenter:* Donna Vanderpool, J.D., Jacqueline M. Melonas, J.D., Martin G. Tracy, J.D.

**EDUCATIONAL OBJECTIVES:**

- At the conclusion of this session, the participant should:
1. know 10 key tips to avoiding lawsuits and malpractice; 2. know the 3 most frequent reasons why psychiatrists are successfully sued; 3. understand different types of malpractice insurance, and which one is best for you.

**SUMMARY:**

This is part one in a three-part comprehensive course that provides you all the information you need to launch a successful private practice. It is composed of two workshops and one symposium all on one day. Offered for the last 8 years and directed by faculty who have succeeded using this information. Even if you are not in private practice this course will offer lots of useful information that will assist you in launching your career. Our material is constantly updated with up-to-the-minute solutions from our faculty with thriving practices.

In part one we focus on risk management, avoidance of malpractice suits, ways to maximize quality, and high risk issues that you must address in your practice. Other sessions cover coding for maximum billing, marketing, office location and design, streamlining your practice, and business/financial principles.

**REFERENCES:**

1. Molloy, Patrick: *Entering the Practice of Psychiatry: A New Physician's Planning Guide*, Roering and Residents, 1996.
2. APA Office of Healthcare Systems and Financing, *Practice Management for Early Career Psychiatrists*, 1998.

**ISSUE WORKSHOP 42**

**TEACHING COGNITIVE BEHAVIOR THERAPY TO RESIDENTS**

*Co-Chairpersons:* Judith S. Beck, Ph.D., *U of PA/Beck Institute for Cognitive Therapy and Research, Psychiatry, 1 Belmont Avenue, Suite 700, Bala Cynwyd, PA, 19004-1610*  
 Donna M. Sudak, M.D., *Drexel University, Psychiatry, P.O. Box 45358, c/o Friends Hospital, Philadelphia, PA, 19124*  
*Presenter:* Jesse H. Wright III, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation, the participant should be able to:

1. Describe various methods of training and supervising residents in CBT
2. Access and use CBT evaluation tools
3. Identify educational resources in teaching CBT to residents
4. Teach residents to integrate CBT with psychopharmacology
5. Teach residents basic CBT skills

**SUMMARY:**

Many residency training programs need to improve their cognitive behavior therapy component. CBT is not just a collection of techniques. In order to demonstrate competency, residents must learn sophisticated methods of conceptualization and how to use a cognitive formulation (which varies from one disorder to another) to plan treatment effectively--in addition to learning basic cognitive and behavioral strategies. A host of resources are available for faculty to help them design or improve their programs. This workshop will help participants identify these resources to enable them to establish standards of competency, devise curricula, learn various methods for training and supervising residents, obtain training materials, identify potential instructors and supervisors, and evaluate residents' competency. Participants will be encouraged to bring up specific problems in training residents in CBT, such as helping residents treat challenging cases, integrating psychopharmacology with CBT, and creating space in the overall curriculum to teach CBT.

**REFERENCES:**

1. Beck JS: Cognitive Therapy: Basics and Beyond. New York, Guilford Press, 1995.
2. Liese B & Beck JS Cognitive therapy supervision. In Handbook of Psychotherapy Supervision, edited by Watkins CE, New York, John Wiley & Sons, 1997, pp114-133.

**ISSUE WORKSHOP 43****TEACHING ON THE FLY: PRACTICAL TIPS FOR TEACHING MEDICAL STUDENTS ONE-TO-ONE**

*Co-Chairpersons:* Andrea E. Waddell, M.D., *University of Toronto, Department of Psychiatry, Wilson Centre for Research in Education, 200 Elizabeth Street - 1 ES 565, Toronto, ON, M5G 2C4, Canada*

*Jodi S. Lofchy, M.D., University of Toronto, Department of Psychiatry, 399 Bathurst St, Toronto, ON, M5T 2S8, Canada*  
*Presenters:* Lana M. Benedek, M.D., Kien T. Dang, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this presentation participants should be able to:

- 1) Discuss the basic theories of one-to-one teaching of psychiatry to medical students.
- 2) Demonstrate techniques used to engage a medical student in one-to-one teaching.
- 3) Apply advanced techniques in challenging one-to one teaching situations.

**SUMMARY:**

Residents are actively involved in the teaching of medical students during their clinical rotations or on call - providing more than 50% of inpatient teaching to medical students and approximately 30% of teaching to other housestaff. Despite their role as teacher, many residents do not receive any training on how to teach effectively.

This is the first of a series of three workshops to help residents develop effective teaching skills. These workshops will cover common teaching experiences and challenges for residents and early career psychiatrists including: one-to-one teaching, small group teaching, effective use of roleplay and giving feedback.

This first workshop will review the theory behind effective one-to-one teaching and demonstrate the skills needed to teach effectively in this way. Participants will have opportunities to develop their

teaching skills throughout this workshop. In the latter portion of the workshop, participants will work in small groups to develop techniques to effectively engage challenging students in a one-to-one teaching session.

**REFERENCES:**

1. Gordon J: ABC of learning and teaching in medicine: one to one teaching and feedback. *BMJ*. 2003; 326:543-5.
2. Lake FR, Ryan G: Teaching on the run tips 2: educational guides for teaching in a clinical setting. *Med J Aust*. 2004;180(10):527-8.

**ISSUE WORKSHOP 44****INFERTILITY: FROM PATIENT CARE TO ADVOCACY AND PUBLIC POLICY**

*Chairperson:* Roxanne Dryden-Edwards, M.D., *National Center for Children & Families, 6301 Greentree Road, Bethesda, MD, 20817-336*

*Presenter:* Ellen Patterson, L.C.S.W.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this session, the participant should be able to

1. Recognize the prevalence of infertility, miscarriage and pregnancy loss, the conditions that cause them and the traditional and alternative interventions that treat them.
2. Understand many of the emotional, interpersonal, spiritual and financial challenges that are associated with these conditions.
3. Understand ways to support sufferers of infertility, miscarriage and pregnancy loss in their practice.
4. Understand ways to advocate for public policy improvements for sufferers of infertility, miscarriage and pregnancy loss.

**SUMMARY:**

Infertility is defined as an inability to conceive and/or carry a fetus to term after trying to do so for more than one year. Pregnancy loss and miscarriage are included in this category of disorders that affects ten percent of adults of childbearing age, or about eight million people in the United States alone. Of those individuals, 40% will experience emotional distress that has a long term impact. When the partners of affected individuals are considered, infertility impacts the lives of one out of every five couples. Given the myriad of medical emotional, spiritual, interpersonal and financial stressors this condition can produce, it is important for mental health professionals to be knowledgeable about infertility and ways to support and advocate for those who endure it. Given the lack of understanding on the part of most health policy makers regarding the toll this class of illnesses has on its sufferers, it is imperative that those who provide mental health care to these individuals become skilled at advocating for infertility sufferers in developing more appropriate public policy.

During this program, Dr. Dryden-Edwards will discuss many of the medical conditions that cause infertility, pregnancy loss and miscarriage, as well as the treatments available to address these conditions. This will include the highly debated issue of using alternative medical interventions to treat this condition. The various kinds of medical and mental health morbidity associated with the conditions and their treatment will be presented in detail. Ms. Patterson will present the potential impact these conditions have on the relationships between infertility sufferers and their spouses, other family members, friends and business associates.

The presentation will conclude with Dr. Edwards and Ms. Patterson providing specific guidance to mental health professionals for appropriate interventions and means of advocating for infertile individuals and their families. The presentation is about 60 minutes in length, allowing about 30 minutes for the audience to ask questions and engage in discussion and potential debate with the presenters.

## REFERENCES:

1. Allen M, Marks S: *Miscarriage: Women Sharing From The Heart*. New York, Wiley Publishing, 1993.
2. Kluger-Bell, *Unspeakable Losses: Understanding the Experience of Pregnancy Loss, Miscarriage and Abortions*. New York, Norton and Company, 1999.

### ISSUE WORKSHOP 45 AN INTEGRATIVE APPROACH TO CULTURAL COMPETENCE TRAINING FOR RESIDENT AND STAFF PSYCHIATRISTS

*Co-Chairpersons:* Kenneth P. Fung, M.D., *University of Toronto, Psychiatry, 399 Bathurst Street, 9 East, Toronto, ON, M5T 2S8, Canada*

Ted Lo, M.D., *University of Toronto, Department of Psychiatry, 409-4040 Finch Ave, East Toronto, ON, M1S 4V5, Canada*

*Presenters:* Lisa F. Andermann, M.D., Ari E. Zaretsky, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

Become aware of the similarities and differences between the Canadian and American disciplines of cross-cultural psychiatry, and their historical/socio-political context

Discuss different models of cultural competency training

Become familiar with an integrative approach to cultural competence training for postgraduate psychiatry training

Demonstrate creativity, knowledge, and skills in implementing different training methods in cultural competence training

Discuss educational issues, including knowledge acquisition, attitude modification, and evaluation, as applicable to cultural competence training

## SUMMARY:

With the era of increasing awareness and recognition of cultural diversity, it has become an opportune time to explore the incorporation of cultural psychiatry training into postgraduate psychiatry curriculum. This workshop will begin by examining the historical and sociopolitical context in which the American and Canadian cross-cultural psychiatry evolve and continue to develop, their similarities and differences, and the implications in cultural competence training. Existing models of cultural competence training will be systematically reviewed, highlighting their strengths and weaknesses. The unique approach underlying the cultural psychiatry curriculum development at the University of Toronto will be presented with its emphasis in achieving "integration" - across the years of postgraduate training; the CanMEDS roles and competencies in knowledge, skills, and attitudes; and the thirteen training programs and divisions at the University of Toronto. The CanMEDS roles, developed by the Royal College of Physicians and Surgeons of Canada, is a framework which has its broad aims to shift postgraduate medical training focus from the interests and abilities of the providers to the needs of the society and to reorient training programs to individual patients within a population context. Cohesive integration of a postgraduate cultural psychiatry curriculum with both undergraduate training and faculty development will be discussed. The workshop will highlight the processes and challenges in the development and implementation of such a curriculum, as well as discussing specific issues such as knowledge transfer, modification of attitudes, and evaluation of change, from the perspectives of both cultural psychiatry and medical education. Specific cultural competence training methods targeting knowledge, skills, and attitudes will be demonstrated with interactive role-plays, experiential exercises, and small/large group discussions.

## REFERENCES:

1. LoboPrabhu, S; King, C; Albucher, R; Liberzon, I: A cultural sensitivity training workshop for psychiatry residents. *Academic Psychiatry*, 2000; 24(2): 77-84.
2. Martin L, Saperson K, Maddigan B. Residency training: challenges and opportunities in preparing trainees for the 21st century. *Can J Psychiatry*, 2003; 48(4):225-31.

### ISSUE WORKSHOP 46 CAREER ADVANCEMENT IN ACADEMIC PSYCHIATRY FOR EARLY CAREER PSYCHIATRISTS

*Co-Chairpersons:* Dimitri D. Markov, M.D., *Thomas Jefferson University, Psychiatry and Human Behavior, 1020 Sansom Street, Suite 1652, Philadelphia, PA, 19107-5004*, Elisabeth J.S. Kunkel, M.D., *Thomas Jefferson University, Psychiatry and Human Behavior, 1020 Sansom Street, 1652 Thompson Building, Philadelphia, PA, 19107*

*Presenters:* Michelle B. Riba, M.D., David J. Lynn, M.D., Marina Goldman, M.D., John-Paul Gomez, M.D., Michael J. Vergare, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participants will be able to understand how to negotiate the complexities of academic psychiatry departments; to improve their ability to prioritize conflicting responsibilities; and to focus career path with the goal of effective career advancement.

## SUMMARY:

Academic psychiatry has undergone significant changes over the past few decades. Departmental structures became more complex while clinical, research, and teaching responsibilities have expanded. These numerous responsibilities are often poorly integrated. Junior faculty often struggle to understand what is expected of them in order to advance within their departments. Junior faculty need a clear road map to develop a successful academic career. Recent literature emphasizes the need for mentors who can help early career psychiatrists set priorities, align conflicting clinical, research and teaching responsibilities, and be effective at meeting departmental expectations.

Faculty will discuss with participants practical issues of academic career development. The workshop will be highly interactive with emphasis on eliciting the needs of early career psychiatrists and providing guidance from senior academic faculty.

## REFERENCES:

1. Kay J, Silberman E, Pessar L: *Handbook of Psychiatric Education and Career Development*. Washington, DC, American Psychiatric Press, 1999.
2. Thomas PA, Diener-West M: Results of an Academic Promotion and Career Path Survey of Faculty at the Johns Hopkins University School of Medicine. *Academic Medicine*. 79(3), pp 258-264.

### ISSUE WORKSHOP 47 HOW TO LAUNCH A SUCCESSFUL PRIVATE PRACTICE: PART 2

*Chairperson:* William E. Callahan, Jr., M.D., *120 Vantis, Suite 540, Aliso Viejo, CA, 92656*

*Presenters:* Keith W. Young, M.D., Tracy R. Gordy, M.D., Chester W. Schmidt, Jr., M.D.

## EDUCATIONAL OBJECTIVES:

1. Understand the use of codes for insurance to accurately reflect your work with patients;
2. Understand documentation requirements

consistent with the codes you use; 3. Know where to go to get updated information on coding throughout your career.

#### SUMMARY:

This is part two in a three-part comprehensive course that provides you all the information you need to launch a successful private practice. It is composed of two workshops and one symposium all on one day. Offered for the last 8 years and directed by faculty who have succeeded using this information. Even if you are not in private practice, this course will offer lots of useful information that will assist you in launching your career. Our material is constantly updated with up-to-the-minute solutions from our faculty with thriving practices. In part two we focus on the complexities of using the insurance industry's procedure codes to accurately reflect your work with patients. Even if you intend to have a fee-for-service cash based practice many patients will require "superbills" for insurance so they can get reimbursed. There are documentation requirements for each code, and not understanding them and following them can leave you prosecuted for fraud.

#### REFERENCES:

1. Practice Management for Early Career Psychiatrists, APA Office of Healthcare Systems & Financing, 1998.
2. Logsdon, L.: Establishing a Psychiatric Private Practice, Washington, D.C., American Psychiatric Press, Inc., 1985.

#### ISSUE WORKSHOP 48 GRASSROOTS ADVOCACY FOR PATIENTS AND FOR THE PSYCHIATRIC PROFESSION: HOW MEDICAL STUDENTS, RESIDENTS, AND EARLY CAREER PSYCHIATRISTS CAN AFFECT THE LEGISLATIVE, REGULATORY, AND POLITICAL PROCESS

*Co-Chairperson:* Jose P. Vito, M.D., *Bronx Psychiatric Center, 235 east 57th street #16A, Bronx, NY, 10022*  
*Tony B. Shivers, American Psychiatric Association, Department of Government Relations, 1000 Wilson Blvd., Suite 1825, Arlington, VA, 22209*  
*Presenters:* Jason Pray, Harsh K. Trivedi, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will understand that getting actively involved in the legislative, regulatory, and political process at all levels of government as a grassroots advocate is essential to protecting the safety of patients and the future of the psychiatric profession. The participant will learn about the value-added government relations services that the APA provides to its members. Also, the participant will learn more about the Jeanne Spurlock Fellowship, particularly how the program can provide opportunities for psychiatric residents to work on Capitol Hill in Washington, DC.

#### SUMMARY:

Getting actively involved in the legislative, regulatory, and political processes at all levels of government as grassroots advocates (i.e. as physicians and constituents) is essential and effective in protecting the safety of patients and the future of the psychiatric profession. It is essential for psychiatrists as grassroots advocates to set and shape mental health policy agendas at all levels of government. Effective grassroots advocacy efforts passed mental health parity laws, defeated scope of practice legislation, and increased Medicare/Medicaid funding in various states over the years.

#### REFERENCES:

1. Yates DF, Wiggins JG, Lazarus, JA, Scully, Jr. JH, Riba M: Patient Safety Forum: Should Psychologists Have Prescribing Authority? *Psychiatric Services* 2004; 55:1420-1426.

2. Gearon CJ: Specialists without M.D.'s are pushing for more medical power. Are they ready--and are you? *US News & World Report* 1/31/2005.

#### ISSUE WORKSHOP 49 TEACHING BOUNDARIES TO PRACTICING CLINICIANS

*Chairperson:* Werner Tschan, M.D., *Neuensteiner Strasse 7, Basel, 4053, Switzerland*  
*Presenters:* Gail E. Robinson, M.D., Michael F. Myers, M.D., Gary R. Schoener, Psy.D., Andrea Celenza, Ph.D.

#### EDUCATIONAL OBJECTIVES:

Educational Objectives: (1) Participants will be able to discuss didactic and methodological approaches for teaching boundary issues to practitioners; (2) Participants will be able to connect boundary violations to personal impairment; (3) Participants will be able to explain how boundaries training can prevent future violations.

The overall goal of the workshop will be to explore a variety of training methods and tools which can be utilized, and which are utilized, to assist practicing clinicians who have either had troubles maintaining boundaries or who would like to avoid trouble.

#### SUMMARY:

This workshop is focused on examining training methods and tools which can be utilized with experienced clinicians to help them avoid boundary violations, or for remediation in cases where boundaries have been violated.

#### REFERENCES:

1. Tschan W: *Missbrauchtes Vertrauen. Sexuelle Grenzverletzungen in professionaellen Beziehungen.* Basel, Karger 2005, 2nd ed.
2. Milgrom J.: *Boundaries in Professional Relationships: A training manual.* Minneapolis: WICC, 1992.

#### ISSUE WORKSHOP 50 MULTIDISCIPLINARY TREATMENT OF CHRONIC PAIN

*Co-Chairpersons:* Vladimir Bokarius, M.D., *Cedars-Sinai Medical Center, Psychiatry, 8730 Alden Dr. Room E123, Los Angeles, CA, 90048*  
 Steven H. Richeimer, M.D., *University of Southern California, Anesthesiology, 1520 San Pablo St, Ste 3450, Los Angeles, CA, 90033*  
*Presenters:* Ali Nemat, M.D., Lisa Victor, Ph.D., Yogi Matharu, DPT, Mary K. Wolf, OTD

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to demonstrate the knowledge of the methodology of management of chronic pain in the multidisciplinary clinic including state of the art interventional pain management, pharmacological and psychopharmacological treatment, psychotherapy, physical therapy, and occupational therapy.

#### SUMMARY:

Chronic pain is estimated to affect 15% to 33% of the U.S. population. Pharmacological or other types of treatments help most people control their pain. However, for many patients currently available methods of pain treatment are either not effective or can cause serious side effects. Besides, comorbid mental disorders may significantly complicate the course of treatment. Our center utilizes the most advanced technology for patient's physical improvement, as well as treatment to strengthen the patients' emotional ability to cope with debilitating effects of pain, and to promote the patients' return to a

fully productive life. The goal of this presentation is to show the role of the combined effort of different healthcare professionals in the treatment of chronic pain.

#### REFERENCES:

1. Coughlin AM, Badura AS, Fleischer TD, Guck TP: Multidisciplinary treatment of chronic pain patients: its efficacy in changing patient locus of control. *Arch Phys Med Rehabil* 2000; 81: 739-40.
2. Victor L, Richeimer SM: Psychosocial therapies for neck pain. *Phys Med Rehabil Clin N Am* 2003; 14:643-57.

#### ISSUE WORKSHOP 51 ARE THERE LIMITS TO BOUNDARY LIMITS?

*Chairperson:* Malkah T. Notman, M.D., *Harvard Medical School, Psychiatry, 54 Clark Road, Brookline, MA, 02445*  
*Presenters:* Carl P.P. Malmquist, M.D., Linda M. Jorgenson, J.D., Elissa P. Benedek, M.D., Lawrence B. Inderbitzin, M.D.

#### EDUCATIONAL OBJECTIVES:

The participant in this workshop will have an opportunity to better evaluate and implement appropriate boundary limits for a range of psychiatric experiences including consultations, psychopharmacology relationships, and intensive therapy.

#### SUMMARY:

During psychotherapy the boundary limits about certain kinds of relationships are not always clear. Having a sexual relationship during therapy is one area which is considered unethical. Business relationships are not always that clear, although can involve unethical exploitation. Previous presentations by this group have considered the dilemmas created when therapist and patient are in the same small community where overlapping relationships may be difficult to avoid. The differences between patient-doctor relationships in intensive treatment such as psychoanalysis and those in diverse treatments such as medication visits, cognitive behavioral treatment, counseling, or consultations have not been widely explored. The post termination boundaries and their ethical and clinical implications have been addressed even less and are even less clear. The concept "once a patient always a patient" has been a cornerstone of APA ethics.

In this workshop we will present several vignettes on videotape representing different post termination relationships from two different psychiatric experiences. Each presenter will discuss these boundary issues representing a continuum of positions from the most strict interpretation of "once a patient always a patient" to a less constricted view, depending on the type of therapy and the transactions in question. Audience participation will be invited.

This group has presented a series of workshops at APA over the past several years exploring boundary issues. The current workshop takes up the ambiguous issue of post-termination relationships. Last year's workshop stimulated a great deal of discussion with time to show only one videotape. This year two additional tapes will be presented.

#### REFERENCES:

1. Appelman, PS & Jorgenson, LM (1991). Psychotherapist-patient sexual contact after termination of treatment: An analysis and a proposal. *Am J Psych*, 148, 1466-1473.
2. Gabbard, G & Lester, E. *Boundary Violations in Psychoanalysis*. Basic Books, 1995. Chapter on Transference.

#### ISSUE WORKSHOP 52 SEXUAL HISTORY: THE ART AND THE SCIENCE

*Co-Chairpersons:* Shahrar R. Amiri, M.D., *Cedars-Sinai Medical Center, 8730 Alden Dr. W-101, Los Angeles, CA, 90048*

Danni Z. Michaeli, M.D., *113 University Place, #1010, NY, NY, 10003*

*Presenters:* Waguih W. Ishak, M.D., Monisha R. Vasa, M.D., Stephanie M. Stewart, M.D., Rekha Raja, D.O.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to demonstrate knowledge on how to take a sexual history, recognize the patient and clinician factors that interfere with the process, and utilize the information to address patient's sexual difficulties.

#### SUMMARY:

Taking a detailed history of past and present sexual behavior is an extremely valuable clinical practice that leads to learning about an important aspect of personal history, identifying sexual disorders, improving the quality of life of patients, addressing high-risk behavior and treating sexual side effects of medications. Avoidance of discussing sexual issues is seen in clinical settings, and is often related to both clinician's and patient's anxiety about the topic. Taking a detailed sexual history sometimes is avoided by clinicians on basis of fear of increasing the distress of patients and/or feeling unqualified to deal with content in addition to personal barriers. Age of the patient, gender difference, sexual orientation and cultural factors, could also contribute to the reluctance of taking an adequate sexual history.

The participants will be able to share their own experience in taking sexual histories from patients, explore patient factors as well as clinician factors and how to address them.

#### REFERENCES:

1. Sadock VA: *Normal Human Sexuality and Sexual Dysfunctions*. In Sadock VA and Sadock BJ (Eds.) *Comprehensive Textbook of Psychiatry*. Baltimore, MD, Lippincott Williams & Wilkins Publishers, 8th edition 2005.
2. Marwick C: Survey says patients expect little physician help on sex. *JAMA*, 1999;281(23):2173-4.

#### ISSUE WORKSHOP 53 THE PSYCHIATRY RESIDENT AS ADVOCATE: PRACTICAL STEPS FROM THE CLINIC TO THE CAPITOL

*Co-Chairpersons:* Joan M. Anzia, M.D., *Northwestern University, Department of Psychiatry and Behavioral Sciences, 1115 Forest Ave, River Forest, IL, 60305-1355*  
James L. Griffith, M.D., *George Washington University Medical Center, Department of Psychiatry and Behavioral Sciences, 2150 Pennsylvania Avenue, N.W., 8th Floor, Washington, DC, 20037*

*Presenters:* Suen W. Huang, M.D., Jeremy A. Lazarus, M.D., Tiffany R. Farchione, M.D., Joel J. Silverman, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation; participants should be able to 1) understand rationales for including advocacy training in residency 2) describe a variety of current educational initiatives in advocacy education in psychiatry residencies and 3) describe ways to implement advocacy training in a wide variety of residency programs.

**SUMMARY:**

Psychiatrists' expertise is essential for accurately addressing public mental health and policy concerns. Strong leadership in public mental health is probably the best way for psychiatrists to regain and retain the public trust that has been significantly diminished in recent years. Major issues include access to quality mental health care, parity, stigma, and scope of practice. Legislators and the public know little about psychiatrists' training and expertise, and groups of non-psychiatrists make policy and legislative decisions about medications and other psychiatric treatments.

But how do psychiatrists become effective advocates? This workshop proposes that education during residency years is crucial for developing the identity, knowledge, and skills of an advocate.

This workshop will present 1) a rationale for didactics and experiential learning in advocacy during residency training and 2) perspectives on advocacy training from a leader in organized psychiatry, a department chair, training directors, and residents. Presenters will describe some successful initiatives. Workshop participants will then work on a small group problem-solving exercise, either:

1) A fictional department of psychiatry is facing a particular public mental health challenge; participants must develop a plan to involve residents in the task.

2) Participants will formulate goals and objectives for advocacy training during residency as a systems-based learning competency.

**REFERENCES:**

1. Inglehart JK: The Mental Health Maze and the Call for Transformation. *JAMA* 2004; 350:507-514.
2. McQuiston HL, Finnerty M, Hirschowitz J, Susser ES: Challenges for psychiatry in serving homeless people with psychiatric disorders. *Psychiatric Services* 2003; 54(5):669-76.

**WEDNESDAY, MAY 24, 2006****ISSUE WORKSHOP 54****SUPERVISING THE SUPERVISORS: SEE ONE, DO ONE, TEACH ONE MODEL SHATTERED! AN INNOVATIVE GROUP TO TRAIN FACULTY TO TEACH MEDICAL STUDENTS.**

*Co-Chairpersons:* Joseph M. Garbely, D.O., Temple University School of Medicine, Psychiatry, 16 Garrison Place, Newtown, PA, 18940

Javed A. Joy, M.D., Temple University School of Medicine, Psychiatry, 100 E Lehigh Ave, Philadelphia, PA, 19125

*Presenters:* Ruth M. Lamdan, M.D., Jonathan G. Shack, M.D., Mary Kurien, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this session, the participants should be able to discuss the existing medical education literature on faculty development. They will have the opportunity to critique our supervision group and discuss faculty development at their institution.

**SUMMARY:**

Academic psychiatrists' responsibilities encompass many educational activities. These include basic science didactics during the first biennium, supervision of students in their clinical clerkships, clinical and individual supervision of residents over the course of their training, career counseling for both students and residents, mentoring, and professional modeling. The question is, how do young faculty develop these skills? In general, most academic centers provide little formal training to prepare them for these responsibilities. Most fall back on their own educational experiences as trainees and utilize the model they experienced as supervisees.

Approximately three years ago our department more than doubled in size. We started a group that we coined "supervising the supervisors" to enhance the teaching skills of our young and newly ap-

pointed faculty. Meeting monthly, over lunch, we tackled predominantly student educational issues and problems. We also addressed individual resident performance and mentoring. A byproduct of this process was the development of faculty cohesion and collegiality.

We will present some of the work that we did over this time, and provide a model of similar activities for other institutions.

## 1. Tangible products of our group:

standardized clinical skills assessment and patient encounter forms.

curriculum for a novel subinternship.

## 2. Specific "cases" addressed:

"The student who prayed too much".

"The student who found a suicided patient".

"The sexually harrassed student".

"A resident undergoing gender transformation".

"Suddenly psychiatry becomes an attractive career choice".

We will engage our audience participants for 35 minutes to:

1. Discuss faculty development at their institutions.

2. React to our proposed model of group supervision.

3. Help to design enhanced strategies to further the supervisory skills of faculty.

4. Explore the portability of this model for the training of "residents as educators".

**REFERENCES:**

1. Schuster DB, Sandt JJ, Thaler OF: Clinical Supervision of the psychiatric resident. New York, Brunner/Mazel, 1972.
2. Teaching the Teachers: Helping Faculty in a Family Practice Residency Improve their Informatics Skills. Cartwright CA, Korsen N, and Urbach LE. *Academic Medicine*, Vol. 77, No.5/ May 2002.

**ISSUE WORKSHOP 55****PSYCHO-KILLERS?: MENTAL ILLNESS AND HOMICIDE**

*Chairperson:* Renee M. Sorrentino, M.D., Massachusetts General Hospital, 25 Staniford St, Boston, MA, 02114

*Presenters:* Joy E. Stankowski, M.D., Britta Ostermeyer, M.D., Susan J. Hatters-Friedman, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this workshop, participants will better understand the relationship between mental illness and homicide. Participants will learn how to perform a risk assessment in mentally ill patients who present with homicidal ideation.

**SUMMARY:**

The question of whether specific psychiatric diagnostic categories are associated with homicidal behavior remains unanswered. The risk of homicide in schizophrenia, mood disorders, and anxiety disorders may appear somewhat greater than the general population but are not of the same magnitude of that for substance abuse or antisocial personality disorder.[i] Contradictory data exists about the relationship between mental illness and homicide. According to the national clinical survey of mental disorder and clinical care in people convicted of homicide, the majority of people convicted of homicide do not have severe mental illness.[ii] Other studies underline the importance of psychiatric assessment in homicide offenders and suggest that treatment might have a preventive role.[iii]

The psychiatric morbidity among homicide offenders will be discussed. The relationship between psychotic disorders, affective illnesses, and personality disorders will be reviewed. The clinical characteristics of sexual homicide offenders will be described. In conclusion a method for assessing the risk of homicide in psychiatric populations will be presented.

## REFERENCES:

1. Asnis GM, Kaplan ML, Hundorfean G, Saeed W: Violence and homicidal behaviors in psychiatric disorders. *Psychiatr Clin North Am.* 1997; 20(2): 405-25.
2. Shaw J, Appleby L, Amos T, McDonnell R, Harris C, McCann K, Kiemann K, Davies S, Bickley H, Parsons R: Mental disorder and clinical care in people convicted of homicide: National clinical survey. *BMJ.* 1999; 318: 1240-44.
3. Fazel S, Grann M: Psychiatric morbidity among homicide offenders: A Swedish population study. *Am J Psychiatry.* 2004; 161: 2129-31.

### ISSUE WORKSHOP 56 PSYCHIATRIC ASPECTS OF DEEP BRAIN STIMULATION FOR PARKINSON'S DISEASE

*Chairperson:* Valerie Voon, M.D., *Toronto Western Hospital, Psychiatry, 399 Bathurst St, Toronto Western Hospital, Toronto, ON, M5S 2T8, Canada*

*Presenters:* Anthony E. Lang, M.D., Andres M. Lozano, M.D., Elena Moro, M.D., Paul Krack, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to

1. Appreciate the rationale, efficacy and limitations of deep brain stimulation for Parkinson's disease
2. Understand the prevalence, range and multifactorial etiology of postoperative psychiatric symptoms following deep brain stimulation for Parkinson's disease
3. Appreciate the "limbic" effects and side effects of stimulation surgery for Parkinson's and the underlying functional neuroanatomy
4. Understand the principles of management of postoperative psychiatric disorders in Parkinson's disease following stimulation surgery

The neurology section will be a brief introduction to Parkinson's disease focusing on motor and non-motor symptoms, dopaminergic and non-dopaminergic etiologies of symptoms and symptoms responsive and unresponsive to deep brain stimulation for Parkinson's disease.

In this section, active audience participation will be elicited using case scenarios with video presentations (patient permission will be secured and identities obscured) and case histories. Open-ended and multiple choice questions will be asked with verbal input and questions encouraged. The focus will be on the assessment and management of pre- and post-operative psychiatric symptoms. The case reports will include symptoms of depression, suicidal ideation, hypomania, emotional reactivity, the dopamine dysregulation syndrome and apathy. During this time, new data on subthalamic stimulation and the dopamine dysregulation syndrome and suicide risk factors will be discussed where relevant. At least 4 case scenarios will be prepared; however, audience questions may further tailor this section.

This section will be led by Dr. Paul Krack, Dr. Elena Moro and Dr. Valerie Voon with participation from all panelists.

This topic should appeal to participants interested in the topics of neuropsychiatry, movement disorders, Parkinson disease, deep brain stimulation and the emotional and cognitive correlates of the basal ganglia.

## SUMMARY:

Deep brain stimulation (DBS) is widely available for Parkinson's disease (PD). The psychiatric indications, contraindications and psychiatric management of DBS for PD are increasingly of pathophysiological and clinical interest. The postoperative rate of depression following subthalamic nucleus (STN) stimulation is 25%, hypomania 4-15%, suicide risk 0.5%, apathy 12-25% and psychosocial diffi-

culties 25% (1). An acute depression with substantia nigral stimulation and response of comorbid obsessive compulsive disorder to STN stimulation (2) has been reported. Postoperative psychiatric management differs from general psychiatry given interactions between PD psychiatric symptoms, and postoperative stimulation, dopaminergic medication and psychosocial changes.

The workshop is multidisciplinary including experienced psychiatry, neurology and neurosurgery personnel. The didactic portion covers the rationale and mechanism of DBS in PD, stimulation-responsive and unresponsive symptoms, functional basal ganglia neuroanatomy focusing on limbic connections and the prevalence and multifactorial etiology of postoperative psychiatric symptoms. Fifty minutes is devoted to audience participation with case scenarios and videos focusing on pre- and postoperative psychiatric assessment and management in relation to the pathophysiological rationale. Symptoms covered include depression and suicidal ideation, hypomania, dopamine dysregulation syndrome (DDS) and apathy. New data on STN stimulation and DDS and suicide risk factors will be discussed.

## REFERENCES:

1. Voon V, Kubu C, Krack P et al: Deep brain stimulation for Parkinson's disease: neuropsychiatric and neuropsychological issues (DBS for Parkinson's disease consensus group). *Mov Disord* (in press). (Anticipated date of publication Dec 2005).
2. Mallet L, Mesnage V, Houeto JL et al: Compulsions, Parkinson's disease and stimulation. *Lancet* 2002;360:1302-4.

### ISSUE WORKSHOP 57 DYNAMIC THERAPY WITH SELF-DESTRUCTIVE BORDERLINES

*Co-Chairpersons:* Eric M. Plakun, M.D., *The Austen Riggs Center, 25 Main Street, P.O. Box 962, Stockbridge, MA, 01262*

Edward R. Shapiro, M.D., *Austen Riggs Center, 25 Main Street, P.O. Box 962, Stockbridge, MA, 01262-0962*

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to enumerate principles in the dynamic psychotherapy of self-destructive borderline patients, implement newly acquired skills in establishing and maintaining a therapeutic alliance with such patients, and be familiar with the countertransference problems inherent in work with these patients.

## SUMMARY:

Psychotherapy with self-destructive borderline patients is recognized as a formidable clinical challenge. Although much has been written about metapsychological issues in psychodynamic psychotherapy, little is available to help clinicians establish a viable therapeutic relationship with these patients. This workshop includes review of 8 principles helpful in establishing and maintaining a therapeutic alliance in the psychodynamic psychotherapy of self-destructive borderline patients. The principles are: (1) differentiation of lethal from non-lethal self-destructive behavior; (2) inclusion of lethal self-destructive behavior in the initial therapeutic contract; (3) metabolism of the countertransference; (4) engagement of affect; (5) non-punitive interpretation of the patient's aggression; (6) assignment of responsibility for the preservation of the treatment to the patient; (7) a search for the perceived injury from the therapist that may have precipitated the self-destructive behavior; and (8) provision of an opportunity for reparation. These principles are compared to Linehan's DBT and Kernberg's Transference Focused Psychotherapy. After the presentation, the remaining time will be used for an interactive discussion of case material. Although the workshop organizers will offer cases to initiate discussion, workshop partici-

pants will be encouraged to offer case examples from their own practices. The result should be a highly interactive opportunity to discuss this challenging and important clinical problem.

#### REFERENCES:

1. Plakun EM: Principles in the Psychotherapy of Self-Destructive Borderline Patients.
2. Plakun EM: Making the Alliance and Taking the Transference in Work with Suicidal Borderline Patients, *Journal of Psychotherapy Practice and Research* 2001; 10: 269-276.

#### ISSUE WORKSHOP 58 TRAINING PSYCHIATRIC RESIDENTS IN THE COGNITIVE THERAPY OF SCHIZOPHRENIA

*Chairperson:* Page Burkholder, M.D., *Kings County Hospital Center/SUNY Downstate, Psychiatry, 451 Clarkshon Avenue, Department of Behavioral Health, Brooklyn, NY, 11203*

*Presenters:* Douglas Turkington, M.D., Michael Garrett, M.D., Neil A. Rector, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will be aware that cognitive therapy, while currently accepted in the treatments of depression and anxiety, is now also an integral part of the therapy of schizophrenia in the UK. The National Health Service now requires that CBT be available to all patients with schizophrenia. There is growing interest in the USA among residents and faculty on the techniques needed to include CBT of schizophrenia in the repertoire of treatment techniques. Indeed, the Beck Institute includes a review of the Cognitive Therapy of Psychosis in its curriculum for Residency Training Directors.

Workshop participants will be able to identify instructional tools and competency measures suggested for including cognitive therapy of schizophrenia in their residency training programs. The workshop will allow psychiatrists who supervise residents in the treatment of patients with schizophrenia to include techniques of cognitive therapy in their repertoire, and provide sources for continuing education beyond the seminar.

Dr. Turkington will suggest possible ways of adapting the UK techniques for USA programs, measuring competency and providing ongoing supervision. The presentations will last approximately 50 minutes, leaving 40 minutes for discussion and questions from the attendees.

#### SUMMARY:

Presenters will briefly describe existing training programs in the USA and UK, including courses for residents at SUNY Downstate and the Insight Programme where National Health Service nurses were trained in a three to four week course to provide a brief version of CBT for schizophrenia. Elements of a curriculum to familiarize North American residents with the tools needed to include CBT in the treatment of their patients with schizophrenia will be described.

#### REFERENCES:

1. Book - Kingdon DG, Turkington D: *Cognitive Therapy of Schizophrenia*. New York, NY, The Guilford Press, 2005.
2. Journal - Turkington D, Kingdon DG: The Insight Programme: Effectiveness of a brief cognitive-behavioral intervention in the treatment of schizophrenia. *British Journal of Psychiatry* 2002; 180: 523-527.

#### ISSUE WORKSHOP 59 THE MIRROR HAS A REFLECTION: TEACHING AND MODELING CULTURAL COMPETENCY TO GENERAL PSYCHIATRY RESIDENTS

*Co-Chairpersons:* Dionne A. Hart, M.D., *Mayo Clinic, Psychiatry & Psychology, 2836 Viola Heights Drive NE, Rochester, MN, 55906*

Renato D. Alarcon, M.D., *Mayo Clinic Medicine School, Psychiatry & Psychology, 200 First Street, SW, GE-M-W, Rochester, MN, 55905*

*Presenter:* Annelie B. Primm, M.D.

#### EDUCATIONAL OBJECTIVES:

APA Shire Child & Adolescent Psychiatry Fellow 2005-2006  
*Educational Objectives:* At the conclusion of the session, the participant should be able to

- 1) Integrate information to improve the quality of instruction in cultural competence, including examples pertaining to two lesser-mentioned ethnic groups: Asians and Native Americans.
- 2) Explain how the American Psychiatric Association addresses culture and its influence on diagnosis.
- 3) Discuss the impact of cultural competency on improving the clinical skills of trainees.
- 4) Explain how culture results in different perspectives and backgrounds which influence the diagnosis and treatment of psychiatric disorders.

#### *Moderators:*

Dr. Dionne Hart, M.D., Mayo Clinic

Dr. Renato Alarcon M.D., Mayo Clinic

#### *Participants:*

Dr. Annelie Primm M.D., American Psychiatric Association

#### SUMMARY:

This workshop will address and discuss evidence and clinical experience based models of instructing trainees regarding management and use of cultural psychiatry knowledge in clinical, diagnosis, and therapeutic arenas. The behaviors and implications of culture. The 4<sup>th</sup> Edition of APA's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) addresses these issues in a special section on each diagnostic entity. This may not be sufficient.

The manner in which clinical and academic programs respond to the issue of cultural competency varies from program to program, as there is yet to be a consensus on the optimal approach. Institutions are choosing educational seminars, attendance at cultural events, and direct patient care as methods of teaching trainees. For example, third year trainees at the University of Hawaii attend a ten-week seminar. This seminar addresses cultures impact on stress, illness behavior, assessment, medication, and psychotherapy. While at University of California at San Francisco first year residents rotate through four of seven ethnic minority-focused inpatient programs which provide care with the cultural needs of certain populations in mind. On the right coast, University of Maryland psychiatry residents are excused from clinical duties for one day in March each year to participate in Cultural Diversity Day. This event is to make residents aware of cultural differences in the patients they treat and the issues that residents may encounter when they treat patients who have cultural backgrounds different from their own. Workshop speakers will share how their institutions approach this core competency.

The audience will play an integral role by sharing their unique opinions and ideas with other psychiatric educators in adult and child and adolescent psychiatry, residents and medical students interested in child and adolescent psychiatry and psychiatric practitioners.

#### REFERENCES:

1. Tseng Wen-Shing: *Handbook of Cultural Psychiatry*. San Diego, Academic Press, 2001.



- Moffic HS, Kendrick EA, Reid K, Lomax JW: Cultural psychiatry education during psychiatric residency. *J. Psychiatry Education* 1998; 2: 90-101.
- Cross TL, Bazron BJ, Dennis KW, Issacs MR. *Towards a Culturally Competent System of Care: Volume I. CASSP Technical Assistance Center, Georgetown University Development Center.* Washington, DC: 1989.
- Spector RE. *Cultural Diversity in Health and Illness.* 4<sup>th</sup> ed. Appleton & Lange. Stamford, CT: 1996.

### ISSUE WORKSHOP 60 ASSISTED OUTPATIENT TREATMENT AND ITS ROLE IN THE FABRIC OF THE MENTAL HEALTH SYSTEM

*Chairperson:* Daniel Garza, M.D., *Mount Sinai Medical Center, Psychiatry, 1 Columbus Place, #S21G, New York, NY, 10019-8232*

*Presenters:* Constantine Ioannou, M.D., Mary Zdanowicz, J.D.

#### EDUCATIONAL OBJECTIVES:

Assisted Outpatient Treatment and Its Role in The Fabric of The Mental Health Care System

*Educational Objectives:*

Understand the general aims of outpatient commitment laws  
Familiarize oneself with the status of outpatient commitment legislation in various regions of the United States

Understand how implementation of outpatient commitment legislation in New York State has resulted in benefits to various stakeholders

Familiarize oneself with the roles outpatient commitment can fit within the infrastructure of public mental health, and other systems as yet unexplored

#### SUMMARY:

Assisted outpatient treatment is creating new elements in mental health care provision as a result of its unique position to monitor patients, monitor mental health care and improve the safety of clients and the communities in which they live. Outpatient commitment laws across the United States have resulted in significant changes in the fabric of mental health provision. By ensuring that patients have a legal obligation to comply with court sanctioned treatment plans, adherence is improved and clinical deterioration thwarted before the appearance of behaviors that may otherwise lead to dangerousness or hospitalizations. But with the stepwise passage of this legislation in several states, the mechanics for this type of program are not always clear. How does outpatient commitment actually work on a day-to-day basis? What necessary infrastructure must exist in order for such a law to be implemented? The successful implementation of Kendra's Law, the outpatient commitment law of New York State, is now five years old. Results during this time prompted the renewal of the law for another five years in July of 2005. That an outpatient commitment program can place itself in the nexus between the mental health and legal systems, and interface between stakeholders within all of psychiatry, begs the question of which theoretical framework outpatient commitment programs truly fit. How do these paradigms translate into an improved system of monitoring patient's stability in the community and prevention of clinical deterioration? The presenters will examine the various issues that fall within the scope of outpatient commitment statutes and how relationships among stakeholders are affected.

#### REFERENCES:

- Appelbaum PS: Assessing Kendra's Law: Five Years of Outpatient Commitment in New York. *Psychiatric Serv.* 2005 July; 56 (7): 791-2.

- McHugo GJ, Drake RE, Teague GB, Xie, H., Fidelity to Assertive Community Treatment and Client Outcomes in the Hew Hampshire Dual Diagnosis Study. *Psychiatric Serv.* 1999 June; 50 (6): 818-24.

### ISSUE WORKSHOP 61 PSYCHIATRISTS IN THE DEAN'S OFFICE: CAREER OPPORTUNITIES, AND CAREER DEVELOPMENT

*Chairperson:* Carolyn B. Robinowitz, M.D., *George Washington University, Psychiatry, 5225 Connecticut Avenue, NW, Suite 514, Washington, DC, 20015*

*Presenters:* Tana A. Grady-Weliky, M.D., Cheryl F. McCartney, M.D., Larry R. Faulkner, M.D., Darrell G. Kirch, M.D.

#### EDUCATIONAL OBJECTIVES:

Participants will become familiar with the many opportunities for psychiatrists working in the dean's office of medical schools, and the factors influencing appointment to and success in such positions.

The first half of the program will consist of presentations by speakers (all of whom are or have been deans or assistant/associate deans) followed by discussion and interaction with attendees to address questions and concerns.

#### SUMMARY:

Psychiatrists work in a variety of settings in multiple clinical and administrative roles. Historically, many psychiatrists have worked in the dean's office primarily in assignments related to their expertise, e.g., deans of student affairs, deans for admissions. In the past decade, increasing numbers of psychiatrists have been appointed to decanal positions at all levels, with broadened responsibilities not only for student life and performance, but for clinical services, research, educational planning, and overall leadership of medical centers. Many psychiatrists maintain their focus on psychiatry while spending part of their time in this new effort. Thus, this area now represents an expanding and important career focus for psychiatrists in academia. This presentation will describe the multiple roles of psychiatrists in these various decanal functions, noting the organizational issues, challenges and skills needed to be successful clinician executives and administrators, as well as issues of recruitment and career development. Special issues for women and ethnic minorities also will be addressed. The panelists are current and former deans who have held multiple senior responsibilities in academia. They will present personal vignettes on their own career pathways as well as information on career planning and development. There will be ample time for audience interaction and discussion of career strategies at all levels.

#### REFERENCES:

- Yedidia M, Challenges to effective medical school leadership: perspectives of 22 current and former deans.
- AAMC.

### ISSUE WORKSHOP 62 DETECTION OF MALINGERING

*Chairperson:* Alan R. Hirsch, M.D., *Rush University MC, Psychiatry & Neurology, 845 North Michigan Avenue, 990W, Chicago, IL, 60611-2201*

*Presenters:* David E. Hartman, Ph.D., Carl M. Wahlstrom, Jr., M.D.

#### EDUCATIONAL OBJECTIVES:

To utilize techniques to help delineate malingering.

#### SUMMARY:

In forensic psychiatry, mental health professionals routinely need to assess the truth or falsity of histories and to weigh candor or

disingenuousness during the physical examination. Yet psychiatrists are only 57% accurate in recognizing deception. This session is designed to teach different methods for detecting both verbal and nonverbal cues of deception in the clinical setting. Through use of live audience participation and videotapes of actual lying episodes, methods of determining lying will be demonstrated.

#### ISSUE WORKSHOP 63

### THE QUALITY INFORMATION SYSTEM: A NEW SYSTEM FOR MEASURING PROGRESS IN THE DOCTOR-PATIENT RELATIONSHIP

*Chairpersons:* Victor J.A. Buwalda, M.D., *Free University of Amsterdam, Psychiatry, Parnassusweg 28-III, Amsterdam, 1076 AR, The Netherlands*

*Presenters:* Michelle B. Riba, M.D., Henk van den Berg, M.D., Prashaant Debipersad, B.A., Richard C. Hermann, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand KIS. He will learn about the different possibilities of KIS to enhance quality of care in context of the doctor-patient relationship.

#### SUMMARY:

A framework used in industry, and increasingly to address gaps in the quality of healthcare is the European Foundation of Quality Management model. This approach, in combination with a balanced scorecard of objectives for improvement, can be used by clinicians and managers to improve their performance and their patients' outcomes (Hermann, 2005; Santiago, 1999; Wagner, 1999). We developed a computerized system that easily can be introduced and used in routine clinical practice. Administrators can add the results of the daily work by the professionals into the system. The system will give more structure to the professional and organisation on a micro level (the doctor-patient-relationship) and can be used for implementing measuring instruments in the organization as a whole.

The program we use is called "The Quality Information System" (KIS) and can be used on different levels (micro, meso and macro level). In this workshop we will give an example how we use the program to introduce and implement a short measurement instrument (like the Health of the Nation Outcome Scales) that can be used to evaluate the progress of the treatment of individual patients and groups in a clinical practice, hospital or healthcare system.

#### REFERENCES:

1. Hermann RC: Improving Mental Healthcare: A Guide to Measurement-Based Quality Improvement. Washington DC, American Psychiatric Press, Inc., 2005.
2. Santiago, J.M.: Use of the Balanced Scorecard to improve the quality of Behavioural Health Care. *Psychiatric Services*, 1999; 55:1571-1576.

#### ISSUE WORKSHOP 64

### CONNECTION IS THE CURE: TREATING RELATIONAL DISORDERS

*Co-Chairpersons:* Glenn N. Siegel, M.D., *Elmhurst Healthcare, 183 North York Road, Elmhurst, IL, 60126*  
Mary Pittman, M.S., *Elmhurst Healthcare, 183 North York Road, Elmhurst, IL, 60126*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will be able to:

- 1) describe the values based approach to the treatment of personality disorders.

- 2) implement the use of this model in his/her own clinical setting
- 3) address severe destructive behaviors in patients according to this values based model

#### SUMMARY:

The presenters' extensive experience in the programmatic treatment of personality disorders has let them to re-conceptualize this diagnostic category as disorders of relationship. The common denominator in all relational disorders is varying degrees of disconnection from self and others. This state of disconnection is expressed through psychiatric symptoms, interpersonal disruption, and self-destructive behaviors. An innovative treatment model based on relational values has been developed and successfully implemented to guide individuals with relational disorders toward developing authentic connection to self and others. The model will be discussed in depth with an example of case history application. The simplicity of the paradigm to be presented demystifies the therapeutic process and creates a culture of collaboration between patient and therapist(s). The content of this workshop is expected to stimulate discussion and re-evaluation of traditional therapeutic approaches to the treatment of personality disorders.

#### REFERENCES:

1. Empathy, mutuality, and therapeutic change: Clinical implications of a relational model. In J-Jordam, A. Kaplan.
2. Gilligan, C. Lyons, N. & Hanmer, T (1990). Making connections. Cambridge: Harvard University Press.

#### ISSUE WORKSHOP 65

### PSYCHIATRY TRAINING FOR PRIMARY CARE PHYSICIANS: AN ONGOING CHALLENGE

*Chairperson:* Hoyle Leigh, M.D., *University of California, San Francisco, Psychiatry, 445 South Cedar Avenue, Fresno, CA, 93702*

*Presenters:* Don R. Lipsitt, M.D., Seth M. Powsner, M.D., Jon M. Streltzer, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the workshop, the participant should be able to recognize the specific needs of primary care physicians for psychiatric training, and formulate the means and venues of providing such training.

#### SUMMARY:

This workshop will explore, with active audience participation, the role of the consultation-liaison psychiatrist in the education of the primary care physician, as a continuation of the successful workshops on this topic. The moderator of this workshop (HL) will briefly present the findings of a survey of directors of training of both psychiatric and primary care residencies demonstrating their perceived need for training in their curriculum. Dr. Lipsitt will discuss the perceived needs and practice of primary care physicians in caring for medically unexplained symptoms. Dr. Powsner will discuss and demonstrate innovative teaching techniques in the emergency room setting for the teaching of psychiatry in a multimedia presentation. Dr. Streltzer will present his experiences and ideas in teaching primary care physicians about chronic pain. Presentations will be limited to 60 minutes with 30 minutes for discussion with the audience. The discussion is expected to stimulate consultation-liaison psychiatrists and psychiatric educators to develop a set of minimal competencies for primary care physicians and to generate ideas that will lead to the development of more effective and efficient curricular models.

#### REFERENCES:

1. Hodges B, Inch C, Silver I: Improving the psychiatric knowledge, skills, and attitudes of.

2. Leigh H (Editor): Biopsychosocial Approaches in Primary Care: State of the Art and.

**ISSUE WORKSHOP 66**  
**WHEN THERAPEUTIC LIFESTYLE CHANGES FAIL: PHARMACOLOGIC MANAGEMENT OF METABOLIC SYNDROME IN PSYCHIATRY**

*Co-Chairpersons:* Peter Manu, M.D., *Zucker Hillside Hospital, Medical Services, 75-59 263rd Street, Glen Oaks, NY, 11004*

Raymond E. Suarez, M.D., *Montefiore Medical Center, Department of Psychiatry, 111 East 210 Street, Bronx, NY, 10467*

*Presenter:* Christoph U. Correll, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the presentation, the participant should be able to competently use first-line pharmacologic treatments for atherogenic dyslipidemia, insulin resistance, arterial hypertension and central obesity.

This workshop will consist of three brief epidemiologic presentations and four clinical modules. Each clinical module will address one of the four components of metabolic syndrome in the format of a dialogue between a psychiatrist and an internist. The audience will be encouraged to participate on both sides of the discussion throughout the 60-minute dialogue.

**SUMMARY:**

The metabolic syndrome is characterized by atherogenic dyslipidemia, insulin resistance (with or without glucose intolerance), abdominal obesity and raised blood pressure. The syndrome is common among psychiatric patients and is associated with a substantial risk of diabetes mellitus, coronary heart disease and premature death.

The management of metabolic syndrome should start with therapeutic lifestyle changes in diet (decreased saturated fats, cholesterol, salt, and carbohydrates with high glycemic index and increase soluble fiber and plant stanols/sterols), weight reduction and aerobic exercise. However, the condition is often resistant to these interventions, a fact unfavorably compounded by the low compliance rates with these measures in psychiatric populations. In contrast, the available drug therapy is highly effective for most components of the syndrome.

The goal of this workshop is to increase pharmacological knowledge about the risk and benefits of first-line drug therapy for metabolic syndrome: statins for atherogenic dyslipidemia; metformin or thiazolidinediones for glucose intolerance; angiotensin converting enzyme inhibitors/ angiotensin receptor blockers or calcium channel blockers for non-emergent hypertension; and sibutramine or orlistat for obesity.

**REFERENCES:**

- Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults. Executive summary of the third report of the national Cholesterol Education program (NCEP) . *JAMA* 2001;285:2486-2497.
- Marder SR, Essock SM, Miller AL, et al. Physical health monitoring of patients with schizophrenia. *Am J Psychiatry* 2004;161:1334-1349.

**ISSUE WORKSHOP 67**  
**COUNTERTRANSFERENCE AND BOUNDARY ISSUES OF RESIDENTS TREATING MEDICAL STUDENTS, FELLOW RESIDENTS, AND ATTENDING**

*Chairperson:* Benjamin D. Lederer, M.D., *Wilford Hall Medical Center, Psychiatry, 344 Larchmont Drive, San Antonio, TX, 78209*

*Presenter:* Julianne Flynn, M.D., Jeffrey M. Lammers, M.D., David J. Wallick, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this workshop, the participant should be able to (1) demonstrate knowledge of countertransference processes faced by psychiatry residents treating other providers, (2) demonstrate an understanding of potential boundary crossings and violations by residents in such situations, and (3) discuss the challenges inherent in supervising the aforementioned residents.

**SUMMARY:**

Of the considerable literature written about countertransference and boundary issues in psychotherapy, little specifically addresses the unique challenges faced by psychiatry residents treating medical students, non-psychiatric residents, and non-psychiatric attending physicians. Three senior psychiatry residents will present their experiences treating medical students, residents, and attendings, respectively. Following this, a psychiatry attending will present her experiences supervising these residents as well as others in similar situations. The presenters will then engage in a panel discussion followed by a question and answer period with the goal of furthering an understanding of the complexities of this oft-overlooked aspect of residency training.

**REFERENCES:**

- Gabbard GO: Identifying and working with countertransference. In *Long-Term Psychodynamic Psychotherapy: A Basic Text*, Washington, American Psychiatric Publishing, 2004, pp 131-151..
- Hendin H, Maltzberger JT, Haas AP: Clinical case conference: a physician's suicide. *Am J Psychiatry* 2003; 160:2094-2097.

**ISSUE WORKSHOP 68**  
**APPLYING FOR NATIONAL INSTITUTE OF ALCOHOL ABUSE AND ALCOHOLISM RESEARCH MONEY: SOME THINGS YOU DIDN'T LEARN IN GRADUATE SCHOOL**  
**Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

*Chairperson:* Robert Huebner, Ph.D., *NIAAA/NIH, 5635 Fishers Lane, 2049, Bethesda, MD, 20892-9304*

**EDUCATIONAL OBJECTIVES:**

- Participants will:
- Understand the organization and mission of NIAAA and the other NIH Institutes
  - Ensuring their application goes to the appropriate component of NIAAA or other NIH Institute
  - How to select the most appropriate funding mechanism, such as research grant programs (R01) exploratory/developmental grants (R21), career development awards (K), and training grants (T & F)
  - How to identify the essential scientific components of a strong grant application - and how to make sure that you have them
  - How to make sure that the reviewers understand what you want to study and how you will do it
  - How to prepare the specific components of the PHS 398 application package
  - How to comply with NIH administrative requirements

How to get valuable technical assistance from NIH & NIAAA scientific program staff

How to learn which areas of research are currently emphasized by NIAAA and other NIH Institutes

How to make the best use of the summary statement of your application's review

What happens to your application after it arrives at NIH

+ Understand the peer review process

#### SUMMARY:

Applying for research funding from the National Institutes of Health (NIH) may be a daunting and frustrating experience --- but there can be an easier way. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) presents an in-depth workshop that will help investigators develop successful applications for NIAAA (or other NIH) research grant funds. Researchers at all levels of experience -- from the first-time applicant to the seasoned principal investigator - can learn how to prepare a successful grant application. Workshop attendees will get an illuminating behind-the-scenes look at the application process and can benefit from the experience of knowledgeable NIAAA staff.

#### REFERENCES:

1. National Institutes of Health Grants Policy Statement (NIHGPS), 2003.
2. U.S. Government, National Institutes of Health. What Happens to Your Grant Application? Health.

#### ISSUE WORKSHOP 69

### THE NATURE OF NURTURE: THE LONG-LASTING IMPACTS OF EARLY ADVERSE LIFE EVENTS

*Co-Chairpersons:* Mireya Nadal-Vicens, M.D., *Massachusetts General Hospital, Psychiatry Department, 121 Park Drive, Apt 18, Boston, MA, 02215*

Stacy S. Drury, M.D., *Tulane University, Psychiatry Department, 34 Neron Place, New Orleans, LA, 70118*

*Presenters:* Charles H. Zeanah, Jr., M.D., Joan Kaufman, Ph.D., Alison Fleming, Ph.D., Michael Meaney, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will understand the impact and possible neurobiological mechanisms by which a variety of negative early life experiences can result in a permanent vulnerability to adverse psychiatric outcomes. Participants will first learn about the lifelong effects of childhood abuse or institutionalization on children, and then how animal models illustrate how early childhood events result in lasting behavioral effects. Participants will incorporate this understanding into their clinical practice, learning how to address and perhaps prevent this lasting vulnerability in a psychiatric setting involving patients and their families.

#### SUMMARY:

The focus of this workshop is to illustrate how a history of early life trauma or significant stress can result in profound neurobiological changes in an individual, resulting in both physiological changes and a lasting vulnerability to psychological distress. In addition to identifying gene:environment interactions that modify this impact, we will also explore how these changes can be transmitted vertically into the next generation through the impact on parental behavior. At the conclusion of this workshop, participants will appreciate 1) the influence of parental behavior on children's neurobiology and future social development, 2) the profound impact of early social deprivation on learning, growth and development, 3) the mechanisms by which early life stressors result in lasting neurobiological and altered physiological stress responses in animal models, and 4) the genetic and physiological pathways mediating these effects. Discussion will focus on the impact that early exposure to negative life

events has on the future development of psychiatric illness, as well as the implications of early intervention and the treatment. The goal is to aid clinicians to be better advocates for children and better support for families as they struggle to raise healthy children in often difficult environmental settings.

#### REFERENCES:

1. Meaney MJ, Szyf M: Maternal care as model for experience-dependent chromatin plasticity? *Trends Neurosci* 2005; 28: 456-463.
2. Cushing BS, Kramer KM: Mechanisms underlying epigenetic effects of early social experience: The role of neuropeptides and steroids. *Neurosci Biobehav Rev* 2005; 29: 1089-1105.

#### ISSUE WORKSHOP 70

### MAINTENANCE OF CERTIFICATION FOR DIPLOMATES OF THE AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY

*Chairperson:* Stephen C. Scheiber, M.D., *American Board of Psychiatry and Neurology, 500 Lake Cook Road, Suite 335, Deerfield, IL, 60015-5249*

*Presenters:* Victor I. Reus, M.D., Naleen N. Andrade, M.D., Burton V. Reifler, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to describe the development and specific components of the maintenance of certification (MOC) program of the American Board of Psychiatry and Neurology. In addition, the participant will be cognizant of the new directions in MOC, as stipulated by the American Board of Medical Specialties.

#### SUMMARY:

The purpose of this workshop is to review the components and requirements of the ABPN's maintenance of certification (MOC) program. In addition, the workshop will explain the role of the American Board of Medical Specialties in the development and ongoing expansion of MOC. The participant will learn what options are available to complete the MOC requirements as well as what new requirements to expect in the future. Updated information will be disseminated on tracking CME, the active roles of specialty societies, and unique methods to complete performance-in-practice requirements. A lengthy question and answer session will be held to clarify all aspects of MOC.

#### REFERENCES:

1. Shore JH, Scheiber SC (eds): *Certification, Recertification, and Lifetime Learning in Psychiatry*. Washington, DC, American Psychiatric Press, 1994.
2. Scheiber SC, Kramer TAM, Adamowski S (eds): *Core Competencies for Psychiatric Practice: What Clinicians Need to Know*. Washington, DC, American Psychiatric Press, 2003.

#### ISSUE WORKSHOP 71

### RESPONDING TO THE IMPACT OF SUICIDE ON CLINICIANS

*Chairperson:* Eric M. Plakun, M.D., *The Austen Riggs Center, 25 Main Street, P.O. Box 962, Stockbridge, MA, 01262*

*Presenters:* Edward R. Shapiro, M.D., Jane G. Tillman, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, participants should be able to [1] enumerate psychotherapist responses to patient suicide and

[2] list practical recommendations for responding to patient suicide from the personal, collegial, clinical, educational, administrative and medico-legal perspectives.

#### SUMMARY:

It has been said that there are two kinds of psychiatrists--those who have had a patient commit suicide and those who will. Mental health clinicians often have less contact with death than clinicians from other environments. Nevertheless, each death by suicide of a psychiatric patient may have a more profound effect on psychiatric personnel than other deaths do on non-psychiatric colleagues because of powerful emotional responses to the act of suicide, and the empathic attunement and emotional availability that is part of mental health clinical work. This workshop offers results from a study revealing 8 thematic clinician responses to suicide: Initial shock; grief and sadness; changed relationships with colleagues; dissociation; grandiosity, shame and humiliation; crises of faith in treatment; fear of litigation, and an effect on work with other patients. Recommendations derived from this and other studies are offered to guide individually impacted clinicians, colleagues, trainees, training directors and administrators in responding to patient suicide in a way that anticipates and avoids professional isolation and disillusionment, maximizes learning, addresses the needs of bereaved family, and may reduce the risk of litigation. The workshop will include ample time for interactive discussion with participants about their own experiences with patient suicides.

#### REFERENCES:

1. Plakun EM: Principles in the Psychotherapy of Self-Destructive Borderline Patients. *Journal of Psychotherapy Practice and Research* 1994; 3:138-148.
2. Powell J, Geddes J, Deeks J, et al.: Suicide in Psychiatric Hospital Inpatients. *British Journal of Psychiatry* 2000; 176:266-272.

#### ISSUE WORKSHOP 72

### NON-GOVERNMENTAL ORGANIZATIONS: RESPONSE TO MENTAL HEALTH CONSEQUENCES OF ASIAN TSUNAMI

*Chairperson:* Jagannathan Srinivasaraghavan, M.D.,  
*Southern Illinois University, Choate Mental Health Center,*  
*1000 North Main, Anna, IL, 62906*  
*Presenters:* Syed A. Husain, M.D., Bruce S. Singh, M.D.,  
Lakshmi Vijayakumar, D.P.M.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize the enormous mental health challenges posed in the developing countries severely affected by the tsunami and the response of some non-governmental organizations, significantly from the experiences of psychiatrists who personally assisted in Indonesia, Sri Lanka and India.

#### SUMMARY:

The destruction caused by the Asian tsunami of December 26, 2004, killed nearly 280,000 people and irrevocably altered the lives of several millions. The tsunami affected Bangladesh, India, Indonesia, Kenya, Maldives, Malaysia, Myanmar, Seychelles, Somalia, Sri Lanka, Tanzania and Thailand. The Aceh Province of Indonesia was the worst affected with over two hundred thousand dead. Only six psychiatrists worked in the area serving nearly five million people. Sri Lanka faced nearly fifty thousand deaths and had less than 40 psychiatrists in the country. Coastal areas of Tamilnadu and Andaman and Nicobar Islands in India, experienced nearly ten thousand deaths. India has four thousand psychiatrists and declined outside assistance. Thailand experienced nearly two thousand deaths including many foreign tourists. All the rest of the countries experienced

much less devastation. Phenomenal assistance was provided by non-governmental organizations. Each of the panelists extended service and training in the affected areas working with non-governmental organizations. They will present on psychosocial problems encountered, training of primary care physicians and community level volunteer workers, coordination of efforts, successes and challenges faced in Indonesia, Sri Lanka and India. There will be reflection on lessons learned and disaster preparedness in serving the mental health needs in the developing countries.

#### REFERENCES:

1. Deva P. The Asian December 24th earthquake and tsunami: Its psychosocial consequences and responses. *Zone XVI WPA Newsletter* No.5 February 4 2005.
2. D'Souza R, Singh B. The mental health challenges in Sri Lanka from working within the disaster area. *World Psychiatry* 2005, 4:2:68.

#### ISSUE WORKSHOP 73

### APPROACHES TO CHRONIC DISEASE MANAGEMENT: OPPORTUNITIES FOR PSYCHIATRY

*Chairperson:* Nick Kates, M.B., *McMaster University,*  
*psychiatry, 146 Park Street West, Dundas, ON, L9H 1X7,*  
*Canada*  
*Presenters:* Michele Mach, M.S.W., Lindsey George, M.D.,  
Anne Marie Crustolo, R.N.

#### EDUCATIONAL OBJECTIVES:

1. By the conclusion of the workshop participants will be familiar with the principles underlying chronic disease management of mental health problems .
2. By the conclusion of the workshop participants will be able to use the principles of chronic disease management to make changes in their own practice or organization

#### SUMMARY:

Chronic Disease Management is a concept that is becoming increasingly important in the way mental health services are conceptualized and organized. This workshop describes the Chronic Disease Management model and its benefits, presents a case example of how one program in Ontario Canada has adopted these principles and discusses how it can be integrated into the practices of workshop participants.

The first presentation describes the chronic disease management model and its six components - comprehensive delivery systems, self management, decision support, information systems, organisational support and links with the community - with particular reference to the management of depression and the role of training "collaboratives".

The second presentation reviews the current literature on CDM and identifies the key components of successful programs including evidenced-based guidelines to increase detection rates, patient registries, collaborative care, tracking individuals over time and support from the sponsoring organisations. It highlights lessons that will be applicable to programs considering introducing these concepts.

The third presentation describes how an award winning program that integrates mental health services into the offices of 150 family physicians in Hamilton, Ontario has integrated the concepts and principles of CDM into its planning and activities over the last 2 years, and the changes this has made to program priorities.

The final part of the workshop will be a discussion on how these concepts can be adopted into the practices and organisations of workshop participants.

## REFERENCES:

1. Journal article - Badamgarav, E., Weingarten, S.E., Henning, J.K., Knight, K., Hasselblad, V., Gano, A., Ofman, J.J. Effectiveness of Disease Management Programs in Depression: A Systematic Review *Am.J. Psychiatry* 160 2080-2090 2003.
2. Journal article - Bodenheimer, T., Wagner, E.H., Grumbach, K. Improving Primary Care for Patients with Chronic Illness - The Chronic Care Model, Part 2 *JAMA* 288 (14) 2002 2469-2475.

## ISSUE WORKSHOP 74

### THE KEY TO SUCCESS, MENTORSHIP MATTERS: A PRACTICAL GUIDE FOR TRAINEES AND EDUCATORS

*Chairperson:* Anita R. Kishore, M.D., *Yale Child Study Center, Child and Adolescent Psychiatry, 1012 Chapel St, Apt 407, New Haven, CT, 06510*

*Presenters:* Harold Alan Pincus, M.D., Dorothy E. Stubbe, M.D., Eva M. Szigethy, M.D.

## EDUCATIONAL OBJECTIVES:

1. To enhance mentorship experiences for trainees in psychiatry with emphasis on boundaries and ethnic/gender issues.
2. To share institutional success stories about mentorship models from across the nation so they can be adopted on a wider scale.

## SUMMARY:

If you treat an individual as he is, he will remain as he is.

But if you treat him as if he were what he ought to be and could be, he will become what he ought to be and could be.

--Johann Wolfgang von Goethe: *Wilhelm Meister's Apprenticeship VIII-4*

Mentorship is a vital component of training and education in psychiatry. Studies show that mentorship relationships can profoundly affect career trajectories - propelling those fortunate enough to establish such relationships to greater heights than those without. At a more personal level, we can all reminisce about those individuals whom we have emulated and who actively helped shape our personal lives and professional careers for the better. Yet quality mentorship is difficult to develop and sustain. In this workshop we seek to engage an audience of trainees and educators in a discussion about the factors affecting the quality of mentorship, including the qualities of a good mentor and mentee, and the obstacles to developing mentoring relationships. Our panelists will lead the audience in a discussion about managing boundaries in a mentoring relationship, and the importance of gender and ethnicity in mentorship relationships. Our panelists will also share some institutional success stories from across the nation and will encourage workshop participants to share success stories from their home institutions.

## REFERENCES:

1. Dunnington GL: The art of mentoring. *American Journal of Surgery* 1996; 171: 604-607.
2. Williams LL: The Good-Enough Mentoring Relationship. *Academic Psychiatry* 2004; 28(2): 111-115.

## ISSUE WORKSHOP 75

### THE EVOLUTION OF GRANDFAMILIES: THE PSYCHOLOGICAL, SOCIAL, AND FINANCIAL IMPACT OF GRANDPARENTS RAISING GRANDCHILDREN

*American Academy of Child and Adolescent Psychiatry*

*Co-Chairpersons:* Sandra C. Walker, M.D., *Private Practice, 1120 Cherry Street, Suite 240, Seattle, WA, 98104*

James E. Lee, Jr., M.D., *Palmetto Health Alliance/USC, Neuropsychiatry and Behavioral Science, 102 Silverado Drive, Hopkins, SC, 29061*

*Presenters:* O.C. White III, M.D., F.M. Baker, M.D., Esme Fuller-Thomson, Ph.D., Harry H. Wright, M.D.

## EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to (1) recognize and appreciate the unique challenges that custodial grandparents face when raising their grandchildren; (2) be aware of resources and programs available to support custodial grandparents.

## SUMMARY:

Over the last decade, there have been increasingly more children being raised by their grandparents. There are a number of factors that have fueled this phenomenon, including substance abuse, child abuse or neglect, incarceration, parental employment, health concerns, and mental illness. According to the U.S. Census Bureau, in 2000 there were over 4.5 million children (under 18 years of age) living in homes maintained by their grandparents. The number of children in grandparent-headed households has increased by 30% since 1990. Grandparents have increasingly picked up more and more responsibility over the years than just the occasional "Day Care" grandparent. Grandparents have been upgraded to "live in" grandparents where the grandparents are the responsible for the primary house hold, and in worse case scenarios, when parents are not around or completely unfit for that role, "Custodial" grandparents are forced to become primary care givers as well as legally responsible for the raising of their grandchildren. "Grandfamily" is a term introduced by Edwards (1998) to describe a family unit in which the grandparents are the primary caregivers in the home.

Why are the increasing numbers of Grandfamilies, specifically an African American problem? "Today black grandmothers are bearing the brunt of problems identified when grandmothers become parents" (C.L. Johnson, 2000). By the late 1990's 6% of American Children were living in households maintained by a grandparent, 4.1% of white children, 6.5% of Hispanic children and 13.5% of African American children were living with grandparents or other relatives. Of some of the heaviest factors leading up to the formation of grandfamilies (divorce, substance abuse, teenage pregnancy, HIV/AIDS, unemployment, and incarceration), African Americans suffer the greatest percentage from these factors than any other race in the United States of America.

Why are the increasing numbers of Grandfamilies becoming such a problem in the United States? Many of the individuals that take over as caregivers to these children underestimate the resources needed to successfully complete such a task. Many grandparents who have had to take care of their grandchildren never had a notion that they would have to go through this ritual again. They often report an increase in blood pressure, stress levels, and even report clinical levels of depression after taking on such responsibility. They are often unable to help those in school with assignments. They are unaware of obstacles that are troubling adolescents today. Furthermore, the increase in responsibility does not always mean an increase in income. Many of the grandparents are on fixed incomes prior to taking in their grandchildren. There is little assistance from family members. It is also frustrating to these individuals that they do not qualify for assessable funding. Most children are eligible only if they were receiving benefits prior to being under their grandparent's care. However, there are an increasing number of programs and initiatives that are trying to break down the barriers that most of these grandparents face.

## REFERENCES:

1. Minkler, M., & Fuller-Thomson E.: African American Grandparents Raising Grandchildren: A National Study Using the Census 2000 American Community Survey. *Journals of Gerontology: Social Sciences*. 2005; 60(2): S82-92.
2. Fuller-Thomson, E., & Minkler, M.: African American grandparents raising their grandchildren: A national profile of demographic

and health characteristics. *Health & Social Work*, 2000; 25(2): 109-118.

### THURSDAY, MAY 25, 2006

#### ISSUE WORKSHOP 76

#### **DIRECT TO CONSUMER MARKETING: JUST WHO IS THE CONSUMER?**

*Co-Chairpersons:* Nadeem H. Bhanji, M.D., *University of Calgary, 1926, 3500 - 26 Ave NE, Calgary, AB, T1Y 6J4, Canada*

David A. Baron, D.O., *Temple University Hospital, 3401 North Broad Street, Jones Hall 800, Philadelphia, PA, 19140-5189*

*Presenters:* Lawrence S. Gross, M.D., Calvin R. Sumner, M.D., Marcia K. Goin, M.D., Andrew E. Slaby, M.D., Bernard A. Fischer IV, M.D.

#### EDUCATIONAL OBJECTIVES:

1. Be aware of the impact and influence of direct-to-consumer (DTC) marketing on physician prescribing of pharmaceuticals.
2. Rationally discuss the impact of DTC marketing on various aspects of patient care and behavior, including: education; economics; medicolegal; and ethics.

#### SUMMARY:

Direct-to-Consumer (DTC) advertising of pharmaceuticals has been a controversial topic between drug manufacturers, federal agencies, consumer groups, managed care organizations, and physician groups. In the current climate of increasing consumer mistrust, the Pharmaceutical Research and Manufacturers of America (PhRMA) Board of Directors recently approved Guiding Principles for DTC Advertising. Whether DTC marketing leads to over-prescribing of more expensive non-generic medications, as critics contend, or destigmatizes mental illness and increases public awareness and use of effective medications, as proponents claim, is an ongoing debate. In keeping with the mission of the Group for the Advancement of Psychiatry (GAP) to examine timely issues affecting psychiatry and the medical profession at large, the GAP Committee on Psychopharmacology surveyed 114 psychiatric residents and psychiatrists on their attitudes and experience with DTC marketing of medications. This workshop will use the results of the survey as a springboard for discussion of a variety of topics with the audience, including the potential impact of DTC marketing on patient expectations, physician prescribing practices, and the physician/patient relationship. Discussants from a variety of settings will offer a range of perspectives including: practicing clinicians, psychiatric residents, academic faculty, pharmaceutical industry, as well as a Canadian perspective.

#### REFERENCES:

1. Kravitz, RL, Epstein, RM, Fedman, MD et al. Influence of Patients' Requests for DTC Advertised Antidepressants. *JAMA* 2005; 293:1995-2002.
2. PhRMA News Release, America's Pharmaceutical Industry Announces Guidelines on DTC Advertising. Dallas, TX. August 2, 2005.

#### ISSUE WORKSHOP 77

#### **CAN I CHANGE? A JOURNEY THROUGH EX-GAY MINISTRIES AND BEYOND**

#### **Association of Gay and Lesbian Psychiatrists**

*Co-Chairpersons:* Mary E. Barber, M.D., *Ulster County Mental Health Department, 239 Golden Hill Lane, Kingston, NY, 12401*

David L. Scasta, M.D., *Independent Psychiatric Services, 115 Commons Way, Princeton, NJ, 08540*

*Presenters:* Jack Drescher, M.D., Alicia J. Salzer, M.D., Anat Salomon, Roy Harker

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to:

- demonstrate familiarity with the APA position statements on homosexuality and sexual orientation conversion therapies and the research behind each
- demonstrate awareness of the ongoing practice of sexual orientation conversion therapies, often by unlicensed and nonprofessional treaters
- identify potential harms to patients that could result from treatments to change people from gay to straight
- discuss how psychiatry can respond to ex-gay and reparative therapy organizations and providers
- discuss how psychiatry could reach out to people who may be targets of such therapies

#### SUMMARY:

The Association of Gay and Lesbian Psychiatrists (AGLP) has produced an educational video on sexual orientation conversion (so-called "reparative") therapies. The film tells of the damage caused by these treatments through the stories of people who tried for years to be "ex-gay" and ultimately came to see their struggle as misdirected and harmful. Expert commentators from APA and AGLP provide a context for these stories. Sexual orientation conversion treatments have been gaining support and publicity in recent years, so this is a timely topic of which practitioners should be made aware. The production team and directors make up the panel that will lead participants in a discussion of the video after its presentation.

#### REFERENCES:

1. American Psychiatric Association, Commission on Psychotherapy by Psychiatrists: Position statement on therapies focused on attempts to change sexual orientation (reparative or conversion therapies). *Am J Psychiatry* 2000; 157:1719-1721.
2. Shidlo A, Schroeder M, Drescher J, eds. *Sexual Conversion Therapy: Ethical, Clinical, and Research Perspectives*. NY, Haworth Press, 2002.

#### ISSUE WORKSHOP 78

#### **A MODEL FOR IMPROVED PSYCHIATRIC SERVICES IN DEVELOPING COUNTRIES: SOUTH ASIAN FORUM**

#### **International South Asian Forum**

*Chairperson:* Jagannathan Srinivasaraghavan, M.D., *Southern Illinois University, Psychiatry, Choate Mental Health Center, 1000 North Main, Anna, IL, 62906*

*Presenters:* Russell F. D'Souza, M.D., Arun V. Ravindran, M.D., Parameshvara P. Deva, M.D., Afzal Javed, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to recognize challenges posed by the developing countries in mental health and appreciate a successful model to improve the psychiatric services in a region of the developing world that serves as an example for others to emulate.

#### SUMMARY:

Developing countries have limited healthcare budget and usually a very meager amount allocated to mental health care. Moreover, trained physicians often migrate to the western countries. South Asia consisting of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, and Maldives is home to nearly a quarter of the world's population. Many psychiatrists from South Asia have immigrated to the developed countries. South Asian Forum is an informal group established by South Asian psychiatrists to foster networking opportunities and to provide advice and guidance to governmental, professional and

other non-statutory bodies to improve mental health services. South Asian Forum has established many regional chapters. Outstanding researchers and leaders lecture at the annual international meetings, bringing current knowledge to the region. Significant disaster relief work and training took place in the worst affected countries following the tsunami. In addition to making substantial donations to worthy causes in the region, this forum provided a platform for psychiatrists of the region to form an association for improved regional cooperation. There are plans to develop culturally sensitive research benefiting the South Asians. This is a model aimed at improving the mental health of developing countries, a return on investment of the "brain drain" to the developed countries.

#### REFERENCES:

1. Jacob KS: Community Care for people with mental disorders in developing countries. *British journal of Psychiatry* 2001, 178:296-298.
2. Murthy RS. Rural Psychiatry in developing countries. *Psychiatric Services*, 1998; 49(7): 967-069.

#### ISSUE WORKSHOP 79 USE OF A STANDARDIZED COMPREHENSIVE PSYCHIATRIC ASSESSMENT TOOL TO FACILITATE EVIDENCE-BASED DECISIONS: THE INTERRAI MENTAL HEALTH.

*Co-Chairpersons:* John P. Hirdes, Ph.D., *University of Waterloo, Health Studies & Gerontology, 200 University Ave West, Waterloo, ON, N2L 3G1, Canada*  
Trevor F. Smith, Ph.D., *University of Waterloo, Health Studies & Gerontology, 200 University Ave West, Waterloo, ON, N2L 3G1, Canada*  
*Presenters:* Terry Rabinowitz, M.D., Terrie Tucker, Brent Diverty, Edgardo L. Perez, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop participants will be familiar with using a client-level, comprehensive assessment tool to facilitate evidence-based decision making for a range of stakeholders (care providers, clients, decision makers). Topics will include: the incorporation of outcomes scales into care planning, best practices, use of quality indicators, and benchmarking opportunities. Throughout the workshop, participants will be encouraged to reflect upon both their current use of health information and experienced barriers to information access and exchange.

#### SUMMARY:

The Ontario Mental Health Reporting System (OMHRS) is a new system that will include clinical, administrative and resource information to support inpatient mental health services planning in facilities with adult inpatient mental health beds in Ontario. One component of this reporting system is the interRAI Mental Health. The interRAI MH is a unique standardized data collection system for mental health which is designed to include care planning, outcome measurement, quality improvement and case mix based funding applications. The instrument includes: a Minimum Data Set for Mental Health © (interRAI MH) with approximately 250 data elements; 28 Mental Health Assessment Protocols © (MHAPs) for care-planning; 32 Quality Indicators for Mental Health (QIMH's) and a series of outcome measures and; the System for Classification on In-Patient Psychiatry (SCIPP), the case-mix methodology developed for use with the MDS-MH data. The present workshop reviews the various applications of the interRAI MH with an emphasis upon using this new comprehensive assessment tool for evidence-based clinical decision making and outcomes evaluation.

#### REFERENCES:

1. Hirdes JP, Marhaba M, Smith TF, Clyburn L, Mitchell L, Lemick RA, Telegidi NC, Perez E, Rabinowitz T, Yamauchi K. Development of the resident assessment instrument-mental health (RAI-MH). *Hospital Quarterly*, 2001; 4: 44-51.
2. Hirdes JP, Smith TF, Rabinowitz T, et al., The RAI-MH: Evidence on inter-rater reliability & convergent validity, *Journal of Behavioural Health Services & Research*, 2002; 29: 419-432.

#### ISSUE WORKSHOP 80 GOING TO THE HEART OF THE MATTER IN PATIENT INTERVIEWS

*Chairperson:* Harold J. Bursztajn, M.D., *Harvard Medical School, Psychiatry, 96 Larchwood Drive, Cambridge, MA, 02138-4639*  
*Presenters:* Thomas G. Gutheil, M.D., Max Day, M.D., Robindra K. Paul, M.D., Beata A. Zolovska, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this video presentation of a master therapist, the late Elvin Semrad, interviewing a patient, the participant will be able to translate painful feelings that patients suffering from major mental illness feel alone and worried with into a common language which can form a foundation for a supportive therapeutic alliance. The participants will not only learn of the role of therapy in a historical context but also will learn how it continues to be useful in the midst of medications and managed health care.

#### SUMMARY:

Elvin Semrad was a master therapist in an age when medications were still in their infancy. There exists only one video recording of his interviewing a patient. This video will be shown and discussed to explore how in an age of medication and managed health care there is still a place for skilled and committed therapists helping patients not to worry alone with unbearable feelings. Five generations of psychiatrists and students, from a Semrad contemporary to a current medical student will reflect on the ongoing relevance of continuing to learn therapy from master therapists.

#### REFERENCES:

1. Rako, S, Mazer, H, Semrad E: *Semrad: The Heart of a Therapist* NYC, NY BackinPrintBooks.Com 2003.
2. Gutheil TG, Bursztajn HJ, Brodsky A. Malpractice prevention through the sharing of uncertainty: informed consent and the therapeutic alliance. *N Engl J Med*. 1984; 311:49-51.

#### ISSUE WORKSHOP 81 FIBROMYALGIA: CURRENT UNDERSTANDING AND FUTURE DIRECTIONS

*Co-Chairpersons:* Alan Z.A. Manevitz, M.D., *Payne Whitney New York Psychiatric Hospital, Psychiatry, 60 Sutton Place South, Suite 1CN, New York, NY, 10021*  
James P. Halper, M.D., *NYU-Lenox Hill Hospital, Psychiatry, 130 East 77th Street, New York, NY, 10021*

#### EDUCATIONAL OBJECTIVES:

To learn to diagnose Fibromyalgia, to learn approaches to current and future clinical treatment of Fibromyalgia and to understand the pathophysiology and new research of Fibromyalgia.

#### SUMMARY:

Fibromyalgia syndrome (FMS) is a common, chronically painful, frequently disabling disorder of unknown origin. Epidemiologic data indicates that FMS affects at least 2% of the general population in the U.S. (approximately 5 million persons). Six to ten percent of all



individuals in a medical physician's waiting room may have FMS. In addition to the pain classification criteria, FMS patients report a variety of other clinical symptoms, including psychiatrically relevant anxiety, depression, headaches, and dysfunctional sleep. Fibromyalgia is associated with high rates of disability, increased health care utilization, more frequent psychiatric consultations and a greater number of lifetime psychiatric diagnoses than controls. More and more patients with this frustrating disorder present themselves or are referred to psychiatrists and/ or even diagnosed for the first time by psychiatrists, and are treated with psychotropic medication. In the past there was a common perception that FMS was just a manifestation of depression. We now understand the prevalence of depression in FMS is about 40%. The pain associated with FMS appears to involve many physiologic components of nociception, so the earlier perception that patients were psychosomatic malingerers has been replaced by the recognition of neurophysiological abnormalities such as abnormal brain imaging and abnormal levels of CSF substance P. During the presentation, presenters and audiences will share cases of psychiatric disorder and abnormal pain so the psychiatrist will (1) better be able to recognize and diagnose FMS;(2) learn up-to-date clinical approaches to treatment of this complex disorder including the use of MILNACIPRAN AND PRELABLA;(3) learn about new research findings that indicate FMS is a primary CNS disorder and thus may be better treated by psychiatrists rather than rheumatologists.

#### REFERENCES:

1. Management of Fibromyalgia syndrome. *JAMA* 2004; 292(19):2388-95.
2. Campbell LC. Clauw DJ. Keefe FJ.: Persistent Pain and Depression: a biopsychosocial perspective. *Bio. Psychiatry* 2003; 54(3):399-409.

#### ISSUE WORKSHOP 82 TRAUMATIZED CHILDREN IN IRAQ

*Chairperson: Sadiq H. Al-Samarrai, M.D., Olean General Hospital, 515 Main Street, Olean, NY, 14760*

#### EDUCATIONAL OBJECTIVES:

- 1) to learn about the sufferings of the Iraqi children
- 2) to explore the mental illnesses of Iraqi children under present circumstances
- 3) to share thoughts with audience about the best way to provide mental care to the children of Iraq

#### SUMMARY:

The Iraqi children are going through the pain of being under violence and insecurity. They have variety of mental disorders resulted from their daily interactions with the situation in Iraq. The psychiatrists there are working with the children to treat their mental illnesses which includes, PTSD, Social Anxiety, Depression, severe grief and others. Their experience under difficult situations is worth to share with other psychiatrists in the world for better understanding and managing the needs of those children.

#### REFERENCES:

1. The Harvard Study Team. The effect of the Gulf crisis on the children of Iraq. *N. Engl.J.Med.* 315:977-980,1990.
2. The Situation of children in Iraq, UNICEF, February, 2002.

#### ISSUE WORKSHOP 83 INTERNATIONAL MEDICAL GRADUATES IN TRAINING AND PRACTICE: PROFESSIONAL AND PERSONAL TRIALS

*Co-Chairpersons: Michael F. Myers, M.D., St. Paul's Hospital, Psychiatry, 1081 Burrard Street, Vancouver, BC, V6Z 1Y6, Canada*

*Nyapati R. Rao, M.D., State University of New York, Downstate Medical Center, Psychiatry, 450 Clarkson Avenue, Box 1203, Brooklyn, NY, 11203*

*Presenters: Milton Kramer, M.D., Brunhild Kring, M.D., Stuart W. Twemlow, M.D., Jeffrey Goldberg, D.O.*

#### EDUCATIONAL OBJECTIVES:

1. Appreciate unique acculturation and educational needs of IMGs
2. Understand some strategic approaches to remediation
3. Recognize some of the personal health needs of IMGs

#### SUMMARY:

International Medical Graduates are a diverse group of men and women who face a number of challenges in North American medicine. This workshop begins to address some of these issues. The five speakers, all members of the Committee on International Medical Graduates of the Group for the Advancement of Psychiatry, will make 10 minute didactic presentations (and pose one question each to the attendees) leaving more than one-third of the allotted time for lively interaction with the audience. Areas to be covered include: acculturation and adaptation of IMGs to residency training in the United States and relevant implications for training directors; the imperative to ascertain the special educational needs of IMGs and the call for the medical system to adapt; covert and overt discrimination against IMGs in training programs and medical institutions; boundaries and ethics with particular relevance to IMGs; identifying and reaching out to symptomatic IMGs and facilitating comprehensive assessment and treatment. This workshop will be of interest to IMGs and their families, residents, and training directors.

#### REFERENCES:

1. Rao NR. International Medical Graduates. In the Handbook of Psychiatric Education and Faculty Development. Edited by Kay J. Silberman, Pessar L. American Psychiatric Press. Washington, DC. 1999. Chapter 6. Pages 125-141.
2. Kramer M. Educational needs of International Medical Graduates in Psychiatric Residency. *Academic Psychiatry* 29:3, July-August 2005, 322-324.

#### ISSUE WORKSHOP 84 RACE AND COUNTERTRANSFERENCE IN THE CLINICAL SETTING

*Co-Chairpersons: Sherri M. Simpson, M.D., Baylor College of Medicine, Department of Psychiatry, 6655 Travis Street, Suite 700, Houston, TX, 77030*

*Sandra C. Walker, M.D., Private Practice, 1120 Cherry Street, Suite 240, Seattle, WA, 98104*

*Presenters: Glen O. Gabbard, M.D., Kimberlyn Leary, Ph.D.*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, participants should be able to conceptualize how the perception of race may influence the clinician's interaction with patients of the same or a different race in both the pharmacologic and psychotherapeutic settings.

#### SUMMARY:

Perceptions of race and associated conditioned fear influence both the patient's transference and the clinician's countertransference. Race signifies a difference shaped by social and psychological his-

tory. Race implicates matters of domination and subjugation or submission between people, of potential conflict, and of sexual attractions and fears. Although most psychotherapeutic models have progressed beyond the perspective that race and culture are merely manifestations of defense and resistance, influences of race and culture remain challenging to understand and to address. Because clinicians may not be fully conscious of these transference and countertransference influences, they can go unexamined.

A renewed interest in fear and avoidance conditioning may help to understand the unconscious associations affecting perceptions of race in the clinical setting. Social learning theory can be instrumental in exploring the influence of race on countertransference not only in psychotherapy but in all clinical settings. This workshop will explore the impact of intergroup conflicts on countertransference through clinical vignettes, expert commentary, and through the audience-interactive administration of The Implicit Associations Tool during the workshop.

#### REFERENCES:

1. Gabbard, G.O. Countertransference: The Emerging Common Ground. *Int. J. Psycho-Anal.* 1995, 76:475-485.
2. Hamer, Forrest. Guards At the Gate: Race, Resistance, And Psychic Reality. *J American Psychoanalytic Association* 2001, 50: 1220-1236.

#### ISSUE WORKSHOP 85 DIALECTICAL BEHAVIORAL THERAPY WITH ADOLESCENTS

*Chairperson:* Syed S.A. Naqvi, M.D., *Cedar-Sinai Medical Center, Psychiatry, 8730 Alden Drive, Los Angeles, CA, 90048*

*Presenter:* Viet Q. Bui, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to understand how to apply methods of dialectical behavioral therapy in adolescents.

#### SUMMARY:

In the early 1990s, Marsha Linehan's work demonstrated the efficacy of DBT in reducing suicidal and self-injurious behaviors among women with borderline personality disorder. DBT posits that borderline personality disorder is caused by pervasive emotional dysregulation. This approach assumes that the emotional dysregulation is not simply biological or family induced but the result of a dynamic interaction between the biology and characteristics of an individual with the individual's social environment. Research has shown that use of this approach with adolescents reduces suicidal behavior, dropout from treatment, psychiatric hospitalization, substance abuse, anger, and interpersonal difficulties.

DBT treatment uses validation strategies that require the therapist to search for, recognize, and reflect to the patient \_and to each family member\_ the validity inherent in his or her response to events and the environment. During assessment and analysis of problem behaviors, the therapist weaves in strategies to increase motivation for change and reinforce skillful behavior. There are four skills: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness.

#### REFERENCES:

1. Linehan, M: *Skills Training Manual for Treating Borderline Personality Disorder.* New York, Guilford Press, 1993.
2. 2004 APA Gold Award: Using Dialectical Behavior Therapy to Help Troubled Adolescents Return Safely to Their Families and Communities. The Grove Street Adolescent Residence of The Bridge of Central Massachusetts, Inc.

#### ISSUE WORKSHOP 86 MENTAL HEALTH ISSUES IN THE AFTERMATH OF HURRICANE KATRINA

*Co-Chairpersons:* Philip T. Merideth, M.D., *University of Mississippi Medical Center, P.O. Box 14251, Jackson, MS, 39236-4251*

Grayson Norquist, M.D., *University of Mississippi, 2500 North State Street, Jackson, MS, 39216*

#### EDUCATIONAL OBJECTIVES:

Recognize the short and long term mental health issues created by Hurricane Katrina

#### SUMMARY:

On August 29, 2005, Hurricane Katrina slammed into the Gulf Coast, causing many deaths, severe destruction, and disruption of vital services from New Orleans to Mobile. This issue workshop will be presented by a group of psychiatrists from the affected states who helped organize relief efforts and who provided mental health services to hurricane victims. The workshop will focus on what happened during and immediately after the storm, the immediate needs of victims and the mental health response to those needs, the long term mental health issues and the mental health response, overcoming barriers to effective mental health treatment following a large scale disaster, and lessons learned from this disaster that may improve the response by mental health professionals to the next disaster of the magnitude of Hurricane Katrina.

#### REFERENCES:

1. Charles S. and Frisch P. *fAdverse Events: What We Feel and Why.* § Book chapter in *Adverse Events, Stress, and Litigation.* Oxford University Press, 2005.
2. Simon R. and Gold L., eds. *fSubthreshold PTSD.* § Contained in *Textbook of Forensic Psychiatry.* American Psychiatric Publishing, Inc., 2004.

#### ISSUE WORKSHOP 87 SIZE MATTERS: TEACHING MEDICAL STUDENTS IN SMALL GROUPS

*Co-Chairpersons:* Lana M. Benedek, M.D., *University of Toronto, Department of Psychiatry, 676 Richmond Street West #209, Toronto, ON, M6J 1C3, Canada*

Bruce C. Ballon, M.D., *University of Toronto, Department of Psychiatry, 33 Russell Street, Rm 3105, Toronto, ON, M5S 2S1, Canada*

*Presenters:* Kien T. Dang, M.D., Andrea E. Waddell, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation participants should be able to:

- 1) Discuss basic theories of small group teaching to medical students.
- 2) Demonstrate techniques used in the planning of a small group teaching session.
- 3) Facilitate a small group teaching session for medical students

#### SUMMARY:

As medical curricula move towards greater amounts of case-based, small group learning, residents have increasing opportunities to teach in this setting. Small group teaching presents a challenge to new teachers because in addition to knowledge of the material being taught; teachers are required to work within group dynamics to optimize the experience for individuals with different learning styles.

This is the second in a series of three workshops designed to facilitate development of effective teaching skills. It aims to provide

an opportunity for residents and early career psychiatrists to improve their teaching skills in small group situations.

During this second workshop, the majority of time will be spent on interactive learning and practicing new skills. There will be a short segment of didactic teaching on small group learning theory. Learner interests, generated from the interactive and small group practical components of the session, will drive the remaining content. Once residents have gained a better understanding of how to plan initiate and evaluate a small group teaching experience, the remaining time will be devoted to practicing these skills.

#### REFERENCES:

1. Jaques D: ABC of learning and teaching in medicine: Teaching small groups. *BMJ* 2003; 326: 492-4.
2. Tiberius R: *Small Group Teaching: A Trouble Shooting Guide*. London, Kogan Page, 1999.

### ISSUE WORKSHOP 88 SO YOU WANT TO BE A CLINICAL INVESTIGATOR

*Chairperson:* Arthur Lazarus, M.D., *Astrazeneca Pharmaceuticals, 1800 Concord Pike, Wilmington, DE, 19850-5437*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, the participant should be knowledgeable about important factors involved in the selection of psychiatrists to conduct clinical drug trials.

#### SUMMARY:

Research organizations (pharmaceutical companies, NIMH, etc.) that sponsor clinical trials are mainly concerned with the viability of the idea proposed by the investigator and the potential benefits it poses to patients. Sponsors make considerable efforts to qualify investigators prior to the investment. The performance and capabilities of an investigator is equally as important to choosing the right idea to support.

Investigators have a tendency to over promise subject recruitment, and such potential pitfalls must be minimized, if not eliminated. Thus it is important that during the selection process sponsors are qualifying and selecting investigators based on certain standards.

During this workshop, attendees will become knowledgeable about important factors involved in investigator selection. Although the focus of the workshop is investigator-initiated studies, attendees will also become aware of how sponsors select investigators for research designed by sponsors themselves.

Many investigators feel as if they are misunderstood by research organizations and would like to share their concerns. This workshop will allow open communication between attendees and the workshop leader—a senior director of clinical neuroscience research at a large pharmaceutical company.

#### REFERENCES:

1. Lazarus A: How to select investigators for independent research studies. *Product Management Today* 2005; 16(3):38-39, 48.
2. Lazarus A: The changing landscape of pharmaceutical medicine. *Physician Executive* 2004; 30(4):40-43.

### ISSUE WORKSHOP 89 COLLABORATIVE MENTAL HEALTH CARE IN CANADA

*Chairperson:* Nick Kates, M.B., *Hamilton HSO Mental Health and Nutrition Program, 146 Park Street West, Dundas, ON, L9H 1X7, Canada*  
*Presenters:* Scott Dudgeon, M.B.A., Francine L. Lemire, M.D., Phil Upshall

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this workshop, participants will be able to demonstrate an understanding of (1) the benefits of interdisciplinary

collaboration; (2) barriers to collaboration in the primary health care environment; and (3) strategies for implementing consumer-centred interdisciplinary collaboration between mental health and primary care services in their communities and in their practices.

#### SUMMARY:

This workshop will describe an initiative undertaken by 12 Canadian national associations representing mental health consumers, caregivers, and health professionals to transform the delivery of mental health care in the primary health care setting. Collaborative Mental Health Care describes a variety of approaches wherein primary health care generalists (e.g. family physicians, nurses and nurse practitioners, pharmacists) work together with mental health specialists (e.g. psychiatrists, psychologists, psychiatric nurses, occupational therapists, social workers) along with mental health consumers and their families as a team focused on the management of mental illness and mental health issues.

This initiative has developed a number of strategies and practical tools intended to improve access to good mental health care by strengthening interdisciplinary collaboration in primary health care. This workshop will focus on the applicability of these strategies and tools in day-to-day practice.

#### REFERENCES:

1. Kates N, Shared mental health care. *The way ahead*. *Ca. Fam Physician* 2002 May; 48:853-855.
2. Katon WJ: The Institute of Medicine "Chasm Report": implications of depression collaborative care models. *Gen Hosp Psychiatry*. 2003 Jul-Aug; 25 (4): 229.

### ISSUE WORKSHOP 90 PSYCHIATRY IN THE PRIMARY CARE SETTING: MAKING IT WORK FOR DOCTORS AND PATIENTS

*Chairperson:* John C. Urbaitis, M.D., *Sinai Hospital of Baltimore, 2401 West Belvedere Avenue, Baltimore, MD, 21215-5216*

*Presenters:* Jonathan S. Davine, M.D., Shauna P. Reinblatt, M.D., Joseph M. Schwartz, M.D.

#### EDUCATIONAL OBJECTIVES:

The participants will better appreciate how communication among professionals can improve practice and patient care in several types of primary care settings.

#### SUMMARY:

Many patients in primary care settings have significant psychiatric problems: depression, anxiety including PTSD, as well as somatization and substance abuse, which can exacerbate their medical problems. Primary care patients often are reluctant to make special arrangements to see a psychiatrist, yet active medical conditions can complicate their psychiatric problems. When psychiatrists see patients in primary care (ambulatory) settings, they can do much to treat the patients and can reach those who otherwise might not receive effective psychiatric care. In this workshop, psychiatrists and other clinicians interested in psychiatry in primary care settings can learn more about working with patients in these settings. Psychiatrists who have successfully worked in a variety of primary care settings, including public, private, and academic settings, share their clinical and administrative experiences. Two of the panelists have extensive experience in Canada, including working in the shared care model; one speaker offers the added perspective of a former family practice physician. Topics include engaging patients in treatment, arranging and managing practice sites, communicating with primary care physicians, coordinating treatment, and developing referrals.

## REFERENCES:

1. Pullen I, Wilkinson G, Wright A, Gray DP: Psychiatry and General Practice Today. London, Royal College of Psychiatrists and Royal College of General Practitioners, 1994.
2. Polsky D, Doshi JA, Marcus S, et al: Long-Term Risk for Depressive Symptoms After a Medical Diagnosis. *Arch Intern Med* 2005; 165: 1260-1266.

### ISSUE WORKSHOP 91 COMPUTER TOOLS FOR COGNITIVE BEHAVIOR TREATMENT: INTEGRATING TECHNOLOGY INTO CLINICAL PRACTICE

*Chairperson:* Jesse H. Wright III, M.D., *University of Louisville, Psychiatry, Norton Psychiatric Clinic, PO Box 35070, Louisville, KY, 40202*

*Presenter:* Douglas Turkington, M.D.

## EDUCATIONAL OBJECTIVES:

At the completion of this Workshop the participant will be able to:

1. Explain rationale and indications for computer-assisted cognitive-behavior therapy.
2. Identify methods for using computer programs in CBT training
3. Describe ways of integrating computer-assisted psychotherapy into clinical practice and education.

## SUMMARY:

This workshop is intended for clinicians who may be interested in using computer tools for psychotherapy as an adjunct to clinical practice or as a method of educating residents or other trainees in CBT. After a brief overview of the use of computers in treatment and education, two computer programs (*Good Days Ahead: The Multimedia Program for Cognitive Therapy and Praxis*) will be described and demonstrated. *Good Days Ahead* is an empirically tested program developed primarily as a treatment method for depression and anxiety. It has also been used in training applications. *Praxis* was designed as an educational tool to assist clinicians in becoming proficient in CBT. Research demonstrating acceptance and efficacy of computer-assisted therapy will also be detailed.

Workshop participants will discuss the different types of computer-assisted therapy and training with a focus on: (1) indications for using computer tools in clinical practice; (2) integration of computer and human components of therapy and education; (3) methods of using computer tools for training in CBT and (4) economic and managed care considerations. The presentation will include short didactic segments, demonstrations of multimedia computer programs, and discussion of issues in the implementation of software for CBT.

## REFERENCES:

1. Wright JH, Wright A: Computer assisted psychotherapy. *Journal of Psychotherapy Practice and Research* 1997; 6:315-329.
2. Wright JH, Wright AS, Albano AM, Basco MR, Goldsmith LJ, Raffield T, Otto,.

### ISSUE WORKSHOP 92 CULTURAL DIVERSITY AND PSYCHIATRY: CLINICAL CARE, RESEARCH, AND EDUCATION

*Chairperson:* Niranjan S. Karnik, M.D., *Stanford University, Child & Adolescent Psychiatry, 401 Quarry Road, Stanford, CA, 94305*

*Presenters:* Nisha Dogra, M.D., Claire P. Rivlin, M.A., Hans Steiner, M.D.

## EDUCATIONAL OBJECTIVES:

1. At the end of this presentation, the participant should be able to identify key issues in cultural competence and diversity in psychiatric practice.

2. Participants will understand the ways to incorporate culturally appropriate care into clinical and research practices.

3. Participants will learn to draw on community resources and translators to better address the needs of cultural minorities.

## SUMMARY:

Cultural competence has become a required skill for mental health providers. Consensus documents for various professional organizations recognize the importance of education in cultural issues. Despite these calls for greater teaching and education about these issues, curricula have been slow to change and educators have come to the realization that the broad range of material available far outstrips the narrow timeframe of current didactic and educational opportunity.

Increasingly, it is evident that practitioners and educators will have to move toward the cultural sensibility model that is the cornerstone of British and Continental efforts at cultural teaching. This approach emphasizes the need for practitioners to develop a pragmatic, flexible model for incorporating cultural and ethnic variation into the clinical encounter.

This workshop aims to demonstrate a cultural sensibility model in clinical work, education and research. The workshop is organized into three parts. Part 1 will address clinical understandings of cultural issues. Dr. Nisha Dogra will present research from the United Kingdom examining the ways that cultural issues enter the systems of child psychiatric care. Part 2 will focus on the ways that research in psychiatry can be framed incorporating cultural issues in complex ways as highlighted by a 2004 NIH report issued by the Office of Behavioral and Social Science Research. Part 2 will also examine the ways that clinicians and academics can educate their staff and students about cultural issues in order to bring these ideas into the clinical and research spheres. In Part 3, Ms. Claire Rivlin will discuss the challenges faced by practitioners who work with non-English speaking client populations and the unique issues that arise in translation.

Interspersed between the didactic portions of the workshop, we plan to show vignettes from the award winning documentary *Worlds Apart* by Dr. Maren Grainger-Monsen and Ms. Julia Haslett. This documentary will highlight the issues faced in cross-cultural care, and will provide a common basis for discussion. This workshop will be interactive and allow for substantial time for participants to be involved in discussions. In addition, participants will be provided with handouts, sample syllabi, and extensive annotated bibliographies.

## REFERENCES:

1. Dogra N, Karnik N: First-year medical students' attitudes toward diversity and its teaching: an investigation at one U.S. Medical School. *Acad Med* 2003; 78(11):191-200.
2. Dogra N, Karnik N: Teaching cultural diversity to medical students. *Medical Teacher* 2004; 26(8):677-80.

### ISSUE WORKSHOP 93 CARDIOVASCULAR COMPLICATIONS OF SECOND GENERATION ANTIPSYCHOTIC DRUGS

*Co-Chairpersons:* Peter Manu, M.D., *Zucker Hillside Hospital, Medical Services, 75-59 263rd Street, Glen Oaks, NY, 11004*

Raymond E. Suarez, M.D., *Montefiore Medical Center, Department of Psychiatry, 111 East 210 Street, Bronx, NY, 10467*

## EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant should be able to diagnose and treat the three life-threatening cardiovascular complications of second generation antipsychotic drugs: a) prolongation of the Q-Tc interval leading to ventricular arrhythmias; b)

eosinophilic myocarditis and cardiomyopathy leading to congestive heart failure; and c) metabolic syndrome leading to accelerated atherosclerosis and coronary heart disease.

#### SUMMARY:

The widespread use of second generation antipsychotics has led to significant improvements in the symptom-control and quality of life of patients with schizophrenia, bipolar disorder and dementia, but has been associated with the emergence of three life-threatening cardiovascular side effects. The first is the prolongation of the repolarization phase of the myocardium, usually recognized as the prolongation of the rate-corrected electrocardiographic Q-T interval. The prolongation of the Q-T interval is a major risk factor for torsade de pointes, a potentially lethal ventricular arrhythmia. The second is eosinophilic/necrotizing myocarditis leading to a rapidly progressive congestive heart failure that has a 50% mortality rate. The third is the metabolic syndrome (a combination of central obesity, insulin resistance, atherogenic dyslipidemia and arterial hypertension) that is present in 30-50% of patients treated with second generation antipsychotic drugs and leads to a significant increase in the risk of "hard" coronary heart events (myocardial infarction and sudden death).

#### REFERENCES:

1. Osby U, Correia N, Brandt L, et al. Time trends in schizophrenia mortality in Stockholm County, Sweden: cohort study. *BMJ* 2000;321:483-484.
2. Cohn T, Prud'homme D, Streiner D, et al. Characterizing coronary heart disease risk in chronic schizophrenia: high prevalence of the metabolic syndrome. *Can J Psychiatry* 2004;49:753-760.

#### ISSUE WORKSHOP 94 CHILDREN OF PSYCHIATRISTS

*Co-Chairpersons:* Michelle B. Riba, M.D., *University of Michigan, Psychiatry, 1500 East Medical Center Drive, Room F6236 MCHC, Ann Arbor, MI, 48109-0295*

Leah J. Dickstein, M.D., *University of Louisville School of Medicine, Psychiatry, 3006 Dunraven Drive, Louisville, KY, 40202*

*Presenters:* Judith S. Beck, Ph.D., Sami Meyerson-Bernstein, Molly R. Kaufman, Matthew Muskin, Sam Raskin, Shoshana L. Shear, M.D., Alexandra Robinson

#### EDUCATIONAL OBJECTIVES:

Recognize and understand how as psychiatrist-parents, their children think and feel about their psychiatrist-parents.

#### SUMMARY:

This 9<sup>th</sup> annual workshop, which enables children of psychiatrists to share personal anecdotes and advance with the audience of psychiatrist-parents and parents-to-be, has been offered to standing room audiences annually. While stigma toward psychiatry in general has diminished, psychiatrists, because of training and professional work, in addition to their professional life, bear emotional fears and concerns of how they will and do function as parents. The five presenters will speak for 10 minutes each about their personal experiences and also offer advice to attendees. There will be a brief introduction to set the tone for the audience and a 30-minute panel discussion, following the individual presentations.

#### REFERENCES:

1. Dickstein, LJ: an interview with Stella Chess, M.D., in *Women Physicians in Leadership Roles*, edited by Leah J. Dickstein, M.D. and Carol C. Nadelson, M.D., American Psychiatric Press, Inc., pp. 149-158.
2. Mueller-Kueppers, Manfred: *The Child Psychiatrist as Father, The Father as Child Psychiatrist* (German), Praxis der Kinderpsy-

chologie und Kinderpsychiatrie, Vol. 34j(8), Nov. ' Dec., 1985, pp. 309-315.

#### ISSUE WORKSHOP 95 GROUP PSYCHOTHERAPY OF SUBSTANCE ABUSE American Group Psychotherapy Association

*Co-Chairpersons:* David W. Brook, M.D., *New York University School of Medicine, Psychiatry, 215 Lexington Avenue, 15th Floor, New York, NY, 10016*

Henry I. Spitz, M.D., *Columbia University College of Physicians and Surgeons, Psychiatry, 101 Central Park West, New York, NY, 10023-4204*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, participants should be able to identify the various types of group therapy used for the treatment of substance abusers, and should be able to recognize the diagnostic and clinical indications for the appropriate use of each type of group treatment. Participants should also be able to utilize current theoretical and technical concepts in the group treatments of patients with substance use disorders. Participants will be able to understand and use individual and psychopharmacological treatments when they are indicated in conjunction with group treatments.

#### SUMMARY:

Group therapy is widely utilized as the treatment of choice for most patients with substance use disorders and for those with other comorbid psychiatric disorders. Many kinds of group therapies are in use, and groups have been found to be clinically effective and cost-effective in the treatment of such patients. Clinicians attending this workshop will learn about the varied types of group treatments used to achieve behavioral and emotional changes in a variety of treatment settings, and to use these approaches in the treatment of patients.

Participants will learn about the theoretical and technical aspects of the use of self-help groups, interpersonal group therapy, cognitive therapy addiction groups, modified dynamic group therapy, phase models of treatment, group approaches to relapse prevention, multiple family groups, and groups in therapeutic communities. Participants will also learn to use individual therapy and medications in conjunction with group therapy.

Participants will have the opportunity to share experiences and clinical examples and to interact with the presenters.

#### REFERENCES:

1. Brook, DW, Spitz, HI: *The Group Therapy of Substance Abuse*. New York, Haworth Medical Press, 2002.
2. Brook, DW (Ed.): *Group therapy and substance abuse*. Special Issue. *Int J Group Psychotherapy* 2001; 51: 3-122.

#### ISSUE WORKSHOP 96 PROVIDING BEHAVIORAL HEALTH TREATMENT SERVICES FOR VERY YOUNG SPECIAL NEEDS CHILDREN AND THEIR FAMILIES

*Chairperson:* Peter D. Ganime, M.D., *Meridian Health-Jersey Shore University Medical Center, Department Of Psychiatry: Children's Program, c/o Ganime 335 Garrison Way, Conshohocken, PA, 19428*

*Presenters:* Joanne Dunnigan, M.S.W., Aura R. Seidler, M.S.W., Vanessa Moss, L.C.S.W.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should appreciate the importance of intervening early when very young special needs children show signs of psychiatric illness. The participant will

better understand the diagnostic challenges presented by children with cognitive impairment, speech and language delays or autistic spectrum disorders who present with signs of co-morbid psychiatric illness. He or she will be better prepared to assist parents, nursery school teachers and day care providers in their efforts to care for these youngsters. The importance of advocating on behalf of this special population so that they will have access to psychiatric services will be better understood.

#### SUMMARY:

Parents seeking psychiatric treatment services for very young children often have a difficult time finding them. When these youngsters have co-morbid developmental problems as well, the task may be an impossible one. Early intervention can improve the prognosis and decrease morbidity in these children. Treatment delay carries risks of bad outcome and greater suffering.

**Objective:** Participants in this workshop will find a forum where they can share ideas about meeting the treatment needs of these young patients and their families.

**Methods;** Presenters will share their experiences developing therapeutic nursery services in a community mental health center where special needs children were integrated into treatment groups with children who did not have developmental delays. Videotaped vignettes will also be used to stimulate discussion among the participants. Problems diagnosing psychiatric disorders in this population will be discussed. Techniques used to foster better social skills and anger management abilities with these youngsters will be described. Adaptations made to accommodate them so that they are able to participate in therapy groups successfully will be explained.

Ways of carrying out creative case management and efficient coordination of services will be explored. Methods of helping parents and other caregivers learn how to best help these children will be addressed. Exploring ways of securing funding and advocating to influence public policy on behalf of these children and their parents will complete the activity of this workshop.

#### REFERENCES:

1. Frankel, KA., Boyum, LA, Harmon, RJ ; Diagnosis and presenting symptoms in an infant psychiatry clinic : comparison of two diagnostic systems. *J Am Acad Child Adolesc Psychiatry* 2004;43:578-587.
2. Minde, K; *Infant Psychiatry; Child and Adolescent Psychiatric Clinics of North America* 4;3 ; Philadelphia, WB Saunders. 1995.

#### ISSUE WORKSHOP 97

### THE IMPACT OF RACE AND GENDER ON THE INTERACTIONS BETWEEN FEMALE PSYCHIATRY RESIDENTS AND THEIR PATIENTS: AN INTERACTIVE GROUP WORKSHOP

*Co-Chairpersons:* Nancy M. Bivens, M.D., *Columbia University/NYSPI, Psychiatry, 1051 Riverside Drive, Box 85, New York, NY, 10026*

Christina V. Mangurian, M.D., *Columbia University/NYSPI, Psychiatry, 1051 Riverside Drive, Box 97, New York, NY, 10032*

*Presenters:* Stephanie LeMelle, M.D., Maria A. Oquendo, M.D., Juliana I. Ekong, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will be able to recognize her own reaction to patients who make sexually inappropriate comments to her and the role that race and ethnicity plays in this interaction. She will also gain skills to help her better supervise resident physicians and medical students who encounter such interactions with patients.

#### SUMMARY:

Female psychiatry residents often experience interactions with patients who comment on the physical and sexual attributes of the physician. Attempts to help female residents understand these interactions are sporadic. Minority women deal with the additional factor of race and ethnicity, as perceived by their patients. Since minority women are underrepresented in psychiatry, it can be difficult for female residents to obtain adequate supervision regarding their response to comments from patients. This can lead to a sense of isolation for minority women in training.

This workshop focuses on how female minority psychiatrists experience sexual comments made by their patients. We will also discuss the impact of these interactions upon the treatment relationship. This workshop will create an atmosphere of discussion through initial presentation of case examples from resident physicians followed by commentary from senior minority women psychiatrists. The majority of this session will be devoted to group participation and sharing of experiences.

#### REFERENCES:

1. Fuerstein LA: The male patient's erotic transference: female countertransference issues. *Psychoanalytic Rev* 1992;79:56-71.
2. Guttman HA: Sexual issues in the transference and countertransference between female therapist and male patient. *J Am Acad Psychoanalysis* 1984;12:187-197.

#### ISSUE WORKSHOP 98

### IDENTIFYING AND MANAGING PATIENTS WITH SCHIZOPHRENIA AND A GENETIC SYNDROME

*Chairperson:* Anne S. Bassett, M.D., *University of Toronto, Psychiatry, 1001 Queen Street West, Toronto, ON, M6J 1H4, Canada*

*Presenter:* Eva W.C. Chow, M.D.

#### EDUCATIONAL OBJECTIVES:

By the end of the workshop participants will be able to:

- 1) Understand the clinical importance of identifying patients with psychiatric illnesses who have genetic syndromes such as 22q11 Deletion Syndrome (also known as velocardiofacial syndrome/Di-George syndrome)
- 2) Recognize major features of genetic syndromes
- 3) Perform a brief assessment for physical features of genetic syndromes useful in office practice
- 4) Better understand management issues that patients with genetic syndromes, including 22q11 Deletion Syndrome, may present to the treating psychiatrist

#### SUMMARY:

Clinical genetics has become more important to general psychiatric practice in the past several years, since the recognition of genetic subtypes in major conditions such as schizophrenia. One patient in 50-100 with schizophrenia has 22q11 Deletion Syndrome (22qDS), making this a rare but important and diagnosable genetic subtype of the illness.

There are features of genetic syndromes such as 22qDS that are recognizable with some background knowledge, interest, and minor adjustments to standard history taking and office assessment.

Our clinic follows a large cohort of patients with genetic syndromes. We have found that the diagnosis of a genetic syndrome leads to changes in overall management, including investigations, monitoring and medication use.

Participants will gain knowledge and skills in these areas that they may apply in their day-to-day psychiatric practice.

## REFERENCES:

1. Bassett AS, Chow EWC, AbdelMalik P, Gheorghiu M, Husted J, Weksberg R: The schizophrenia phenotype in 22q11 Deletion Syndrome. *American Journal of Psychiatry* 160:1580-86, 2003.
2. Bassett AS, Chow EWC: 22q11 Deletion Syndrome: A genetic subtype of schizophrenia. *Biological Psychiatry* 46:882-891, 1999.

## ISSUE WORKSHOP 99

**DISASTERS, PUBLIC POLICY, AND ADDICTION PSYCHIATRY****Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

*Chairperson:* Richard J. Frances, M.D., *Silver Hill Hospital, Psychiatry, 1051 Riverside Drive, Unit 66, New York, NY*  
*Presenters:* Avram H. Mack, M.D., Sheila B. Blume, M.D., Sheldon I. Miller, M.D., Frances R. Levin, M.D., Robert B. Millman, M.D., Marc Galanter, M.D.

## EDUCATIONAL OBJECTIVES:

Educational Objective #1: The participant will become aware of the risks for substance use in the context of natural and man-made disasters

Educational Objective #2: The participant will understand the basis for policies aimed at screening for and addressing substance use in the context of disasters.

## SUMMARY:

For over 3 decades the "Ewing Group" has met annually at the APA annual meeting and has consisted of leaders in the addiction field. The format has been brief introductory comments by each participant, with this year's focus being public policy and addiction especially related to disasters and then a wide ranging discussion including the audience. This year Hurricane Katrina wreaked havoc on the U.S. Gulf Coast and important aspects of the effects of disasters on incidence and complications of addiction will be discussed. Clinicians and policymakers in every part of the world have faced disasters and will face others in the future. There is an increasing amount of data that suggest that individuals begin or relapse into use of substances of abuse in the periods after the disastrous events. This workshop will include a discussion of these data. It will also address important questions of how to integrate substance use disorders into the policies and approaches to patients in the aftermath of such disasters. Data related to terrorist attacks (such as Oklahoma City or September 11th, 2001) or natural disasters (such as Hurricane Katrina) will be evaluated and discussed as a group. Questions pertaining to methods of screening, whether substance use is well-enough recognized in current policies, and whether there are geographic differences will be discussed.

## REFERENCES:

1. Vlahov D, Galea S, Ahern J, Resnick H, Boscarino JA, Gold J, Bucuvalas M, Kilpatrick D: Consumption of cigarettes, alcohol, and marijuana among New York City residents six months after the September 11 terrorist attacks. *Am J Drug Alcohol Abuse*. 2004.
2. Pfefferbaum B, Doughty DE: Increased alcohol use in a treatment sample of Oklahoma City bombing victims. *Psychiatry*. 2001 Winter; 64:296-303.

## ISSUE WORKSHOP 100

**PERFORMANCE ENHANCEMENT PSYCHOLOGICAL TECHNIQUES IN GOLF**  
**International Society for Sport Psychiatry**

*Co-Chairpersons:* Salvador R. del Rosario, Jr., M.D., *Cedars-Sinai Medical Center, Child and Adolescent Psychiatry, 8730 Alden Dr., Thaliens Bldg, Rm W101, Los Angeles, CA, 90048*

Syed S.A. Naqvi, M.D., *Cedars-Sinai Hospital, Child and Adolescent Psychiatry, 8730 Alden Drive, Los Angeles, CA, 90048*

## EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant should be able to recognize common mental errors committed by golfers, and understand the potential benefits of performance enhancement psychological techniques, including goal setting, imagery, cognitive behavioral interventions, relaxation techniques, intensity regulation, and hypnotherapy, as reviewed in the popular literature and evidence-based scientific literature using MEDLINE 1900-2005.

## SUMMARY:

**Methods:** Interviews were conducted with Dr. Dan Begel MD, founder of the International Society of Sport Psychiatry, and Sport Psychologists that have worked with collegiate golf teams. The popular literature was reviewed, and a MEDLINE data base search from 1900-2005 was conducted.

**Results:** Golf is one of the most popular recreational sports in the world. In the US, more than 23 million people play the game, including over 11,000 professional players. As the saying goes, "90% of golf is played between your ears, and the other 10% is... mental." As such, the sport lends itself to mental errors, and subsequently, psychological techniques that may enhance performance.

All golfers, from the beginner to the professional, are susceptible to making mental errors. Tension, anxiety, negative thinking, negative imagery, and suboptimal focus are common mental mistakes committed by golfers. The "yips," is another golfer's problem that may have both neurological and psychological components.

In the fields of Sport Psychology and Sport Psychiatry, there is a wealth of academic research on Performance Enhancement Psychological Techniques, including: goal setting, imagery, cognitive behavioral interventions, relaxation techniques, intensity regulation, and hypnotherapy. While these techniques may be applicable to many sports, the study of their application to golf is limited.

**Conclusion:** Golfers of all skill levels may enhance their performance and enjoyment of the game, using a variety of psychological techniques. For the Sport Psychologist or Psychiatrist, the art of training the athlete to utilize these techniques entails working within each athlete's unique biopsychosocial matrix. More studies are required to better understand the efficacy of these techniques in golf, as well as possible adverse effects.

## REFERENCES:

1. Begel D, Burton RW: *Sport Psychiatry, Theory and Practice*. New York, WW Norton and Co, 2000.
2. Singer RN, Hausenblas HA, Janelle CM: *Handbook of Sport Psychology*, 2nd edition. New York, John Wiley and Sons, Inc, 2001.

## ISSUE WORKSHOP 101

**ANOREXIA AND MALNUTRITION IN THE ELDERLY PATIENT**

*Chairperson:* Jonathan T. Stewart, M.D., *University of South Florida College of Medicine, Psychiatry, 1900 Follow Thru Rd N, Saint Petersburg, FL, 33710-3726*

*Presenters:* Ellen M. Notz, Linda J. O'Keefe-Wood, M.S.

**EDUCATIONAL OBJECTIVES:**

1. Determine the etiology of involuntary weight loss in an elderly patient.
2. Formulate a comprehensive plan to promote weight gain and decrease nutritional risk in an elderly patient.

**SUMMARY:**

Involuntary weight loss and malnutrition are common problems among older individuals, and are strong predictors of mortality, functional decline, institutionalization and poor quality of life. Individuals with psychiatric morbidity, notably depression and dementia, are overrepresented among the elderly at nutritional risk. For example, depression accounts for about one third of all involuntary weight loss in elderly individuals, in contrast to only about ten percent for malignancies. The psychiatrist, by virtue of his or her expertise in diagnosis and treatment of these illnesses, medical background and awareness of psychosocial issues, is in an ideal position among healthcare professionals to evaluate and treat these critical problems.

This workshop will focus on the assessment of psychiatric, psychodynamic, social and medical factors that contribute to involuntary weight loss and malnutrition in the elderly, and on appropriate interventions. Following brief didactic presentations, faculty will present illustrative case vignettes and lead participants in formulation of a comprehensive interdisciplinary plan to promote weight gain and decrease nutritional risk.

**REFERENCES:**

1. Clarke DM, Wahlqvist ML, Strauss BJG. Undereating and undernutrition in old age: integrating bio-psychosocial aspects. *Age Aging* 1998; 27:527-534.
2. Morley JE. Pathophysiology of anorexia. *Clin Geriatr Med* 2002; 18:661-673.

## ISSUE WORKSHOP 102

**MEDICAL COMORBIDITY IN DUAL DIAGNOSIS PATIENTS****Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism**

*Chairperson:* Vasant P. Dhopes, M.D., *VA Medical Center, Behavioral Health Service, University & Woodland Aves, Philadelphia, PA, 19104*

*Presenter:* Rosalinda Dirienzo, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this work shop the participants will be knowledgeable about the common medical issues and their management among dually diagnosed patients

**SUMMARY:**

This work shop is designed for practitioners in dual diagnosis settings. This will be a practical real world review of medical problems associated with dual diagnosis. Active participation by the audience will be encouraged. Some basic and general knowledge of internal medicine is sufficient.

Dual diagnosis patients are at high risk for medical co-morbidities and are frequent users of primary care and a large amount of consultative services, contributing substantially to health care cost. Previously we reported that 40% of patients on our dual diagnosis unit had at

least one consult request and 60% required more than one consultation. This work shop will focus on the critical importance of recognition and management of medical disorders encountered in this population. Interesting cases with unusual pathology will be illustrated.

**REFERENCES:**

1. Felker B, Yagel B, Short D. Morality and Medical co morbidity among psychiatric patients, A Review. *Psychiatric Services* 47:1356-1363, 1996.
2. Rubin RB, Neugaten J, Medical complications of cocaine: Changes in pattern of use and spectrum of complications. *J Toxical Clin Toxical* 30, 1,12, 1992.

## ISSUE WORKSHOP 103

**DETECTING BIPOLAR DISORDER**

*Co-Chairpersons:* Gary E. Miller, M.D., *ASN, Owner/President, 530 Wells Fargo Drive, Suite 110, Houston, TX, 77090*

Richard L. Noel, M.D., *ASN, Physician, 530 Wells Fargo Drive, #110, Houston, TX, 77090*

**EDUCATIONAL OBJECTIVES:**

1. Participants will acquire an understanding of the prevalence of bipolar spectrum disorders, the varying manner in which these disorders present clinically, and the frequency with which patients with bipolar spectrum disorders are misdiagnosed.
2. Participants will become familiar with clues for detecting the presence of bipolar spectrum disorders in patients presenting with depression, psychosis, aggressive behaviors and impulsivity.

**SUMMARY:**

The workshop will focus on clues for detecting bipolar disorder in children, adolescents and adults presenting with depression, psychosis, aggressive behavior and other conditions in which diagnosis is less-than-obvious. Since bipolar disorder is frequently misdiagnosed and since inaccurate diagnosis can lead to inappropriate pharmacological management and possible worsening of the course of illness, it is important that patients be carefully evaluated for subtle indications of mood instability.

The moderators are clinical psychopharmacologists who have treated over 10,000 patients of all ages over the last twelve years. They will present vignettes of actual patients, each illustrating a presentation of bipolar disorder in which the classic features of the disorder are not apparent but in which detailed history-taking revealed clues to the correct diagnosis. Cases include adults with "recurrent major depression," an adolescent with an acute psychotic episode, a woman with post-partum depression and children diagnosed with ADHD. Attendees will be encouraged to discuss the cases presented and to convey their own clinical experience and views. We estimate that about 60 of the 90 minutes of the workshop will be given over to questions and answers and general discussion.

**REFERENCES:**

1. Akiskal, H.S. et al : Re-evaluating the Prevalence and Diagnostic Composition within the Broad Clinical Spectrum of Bipolar Disorders. *Journal of Affective Disorders* 2000; 59 (supplement 1): S5-S30.
2. Blanco, C. et al: Trends in the Treatment of Bipolar Disorder by Outpatient Psychiatrists. *Am J Psychiatry* 2002; 159: 2005-2010.



**ISSUE WORKSHOP 104**  
**SIMULATIONS AND PSYCHIATRIC EDUCATION:**  
**WORKSHOP FOR STANDARDIZED PATIENT**  
**TRAINING**

*Co-Chairpersons:* Nancy L. McNaughton, M.Ed., *University of Toronto, Dept. of Psychiatry, University Health Network, 200 Elizabeth Street, 1 ES - 565, Toronto, ON, M5G 2C4, Canada*

Kerry J. Knickle, B.A., *University of Toronto, Standardized Patient Program, University Health Network, 200 Elizabeth Street, 1 ES -565, Toronto, ON, M5G 2C4, Canada*

*Presenter:* Bruce C. Ballon, M.D.

**EDUCATIONAL OBJECTIVES:**

**Training:** Learn techniques and protocol for attaining realistic portrayals with special attention given to pitfalls such as over endorsement, under endorsement and generalized endorsement of symptoms.

**Simulation:** Learn techniques to help SPs maintain a standardized portrayal over time and many repetitions. Learn about measures that have been found to help reduce possible personal effects of psychologically and emotionally demanding roles

**Workshop Format:** The workshop will be divided into two sections with interactive exercises and discussion specific to each area

**SUMMARY:**

Workshop Activities

Training:

1. Learn training techniques for helping attain realistic psychiatric portrayals

2. Train actual SPs and receive feedback

3. Observe and discuss SP performances

Simulation:

1. Participants will explore such phenomena as role adherence, emotional side effects, affective incongruence and other intriguing elements of simulation in psychiatry through visualization and reflective meditation exercises

2. Discussion - what is the skill level required for this kind of role play - actors vs. non actors

**Background:** Standardized Patients (SPs) are portraying psychiatric conditions increasingly for both teaching and assessment across a continuum from medical student education to assessment of competence for certification and licensure. There is a demand for longer and more psychologically complex and emotionally subtle simulations. What are the challenges facing the SP trainers and SPs with respect to these demands? This workshop will address issues related specifically to recruitment, training and simulation of psychiatric cases.

**REFERENCES:**

- McNaughton N, Tiberius R, Hodges B, *fThe Effects of Portraying Psychologically Complex Standardized Patient Roles.* *Teaching and Learning in Medicine*, 11 (3), 135-141,1999.
- Hodges B., Hanson M., McNaughton N., Regehr G., *fCreating, Monitoring and Improving a Psychiatry OSCE: A Guide for Faculty.* *Academic Psychiatry*, 26 (3), Fall 2002.

**ISSUE WORKSHOP 105**  
**MAKING IT HAPPEN: IMPLEMENTING THE APA**  
**PRACTICE GUIDELINE FOR MAJOR DEPRESSIVE**  
**DISORDER IN EVERYDAY PRACTICE**

*Chairperson:* Jack S. McIntyre, M.D., *Unity Health System, Psychiatry and Behavioral Health, 2000 South Winton Road, Bldg. 4 Suite 303, Rochester, NY, 14618*

*Presenters:* Joel Yager, M.D., Rory P. Houghtalen, M.D.

**EDUCATIONAL OBJECTIVES:**

Recognize how practice guidelines can aid a health system in improving clinical practices and patient outcomes in major depressive

disorder. Identify one performance measurement tool for assessing practice guideline adherence. Describe a process and methods for practice guideline implementation in a behavioral health setting.

**SUMMARY:**

Despite more than a decade since the APA practice guideline for the evaluation and treatment of major depressive disorder (MDD) was first disseminated, adherence to practices that optimize the evaluation and treatment of major depressive disorder remain variable and often suboptimal. Processes to improve adherence to guideline recommendations in everyday practice have not been clearly defined. This workshop provides an overview and details of a systematic effort to implement the APA guideline for MDD in large, community-based behavioral health system. We will present methods used to effect a cultural change in the practice environment that includes cultivation of administrative support, development of a trainers program, and the harnessing of the continuing education curriculum and quality assurance process to support the implementation. Examples of educational newsletters, tool kits, rating scales, and decision support resources will be demonstrated. We will present data comparing pre and post-implementation adherence to guideline recommended practices, and discuss opportunities and challenges to full implementation. This workshop will be relevant for clinicians and clinical administrators seeking to enhance guideline adhering practices in their practice settings.

**REFERENCES:**

- McIntyre J: Usefulness and limitations of treatment guidelines in psychiatry. *World Psychiatry*, 2002; 1:186-199.
- Physician Consortium for Performance Improvement. (2005). *Clinical Performance Measure: Major Depressive Disorder.* (American Medical Association), Washington, DC. <http://www.ama-assn.org/ama/pub/category/4837.html> accessed 9/1/2005.

**ISSUE WORKSHOP 106**  
**DESPERATE HOUSEWIVES SURVIVE THE WAR**  
**OF THE WORLDS: THERAPEUTIC PERSPECTIVES**  
**ON WOMEN'S HEALTH**

*Chairperson:* Richard K. Harding, M.D., *University of South Carolina School of Medicine, Department of Neuropsychiatry, 3555 Harden St., 15 Medical Park, Suite 104A, Columbia, SC, 29203*

*Presenters:* Nioaka N. Campbell, M.D., Meera Narasimhan, M.D., Craig A. Stuck, M.D., Leslie E. Frinks, M.D.

**EDUCATIONAL OBJECTIVES:**

At the conclusion of this session, the participant should be able to identify and appreciate the diverse diagnostic and treatment issues that are specific to women's mental health. The participant will discuss therapeutic issues relating to case presentations of women diagnosed with eating disorders, substance use disorders, anxiety disorders, and depressive disorders. The participant will compare the differences in symptom presentation for each of these disorders across a woman's lifetime. In the section on eating disorders, the participant should be able to recognize prognostic factors and outcomes in women with anorexia or bulimia. The participant will identify the need for aggressive treatment plans in this special population. In the discussion of substance use disorders, the participant will be able to understand the effects of alcohol dependence in women across the lifespan. The participant will be able to evaluate research relating to women's use of alcohol and differences between the sexes. In the section on anxiety disorders, the participant will learn how to implement a developmental approach in identifying the onset of anxiety disorders in women. The participant will be able to review the risks of co-morbidity in young women with anxiety

disorders. In the discussion of depressive disorders, the participant will be able to identify four depressive conditions specific to women: premenstrual dysphoric disorder, depression in pregnancy, postpartum depression, and depression related to menopause. The participant will be able to evaluate the management of depression in women using antidepressants and alternative interventions throughout the life cycle. The participant will recognize that the treatment of women with depression can be done safely and effectively. The participants will discuss personal clinical experiences and strategies for managing the various disorders common to women. The participant will have a greater understanding of the importance for future research in women's psychiatric assessments and treatment.

#### SUMMARY:

The ever-changing roles and responsibilities of women remain expansive as women thrive in the workplace, in the home, and in the community. All women in our society are exposed to the same mass media blitz concerning the desirability of thinness, control, success and motherhood. There have been ongoing public opinions concerning the assessment and treatment of women's mental health and well being over the past year. The issues affecting women in today's culture are diverse, and differ from that of their male counterparts. Specific issues in women that are of substantial public health concern include eating disorders, substance use disorders, anxiety disorders, and depressive disorders. This workshop will address therapeutic perspectives on each of these disorders relating to women's health.

Between 0.5-1% of American women suffer from anorexia nervosa yet this disorder has one of the highest death rates of any mental illness. Bulimia nervosa affects 1-2% of women and can lead to electrolyte and chemical imbalances in the body that affect the heart and other major organ systems. The presenter of this section will review symptoms of anorexia and bulimia during middle to late life, discuss prognostic factors, and identify outcomes that demonstrate the need for aggressive treatment of this unique population.

In the 2003 National Survey on Drug Use & Health, an estimated 5.9% of women met abuse/dependence criteria for alcohol or an illicit drug in the past year. Up to one-third of American women report regular alcohol consumption with 2.5 million meeting the criteria for alcohol dependence. The presenter of this section will compare the effects of alcohol dependence in women across the lifespan and assess co-morbidity relating to women's use of alcohol.

Female children and adolescents are at increased risk of developing an anxiety disorder. Youth with anxiety disorders are at significant risks for other co-morbid anxiety disorders, as well as depression. Despite the frequency of anxiety disorders in children, these disorders often go unrecognized and untreated. The presenter of this section will examine a developmental approach to the onset of anxiety disorders and assess the increased risks for females with anxiety disorders.

Women constitute two-thirds of patients suffering from common depressive disorders. Four depressive conditions specific to women include premenstrual dysphoric disorder, depression in pregnancy, postpartum depression and depression related to menopause. The presenter of this section will address safe and effective management of women with depression throughout the life cycle, including the use of antidepressants and alternative interventions.

Throughout this workshop, participants will present case vignettes representing each of these disorders. The workshop will conclude with audience participation, as discussion and opinions on diagnostic and treatment implications are encouraged.

#### REFERENCES:

1. MacQueen G, Chokka P: Special issues in the management of depression in women. *Can J Psychiatry* 2004;49(3 Suppl 1):27S-40S.
2. Altshuler LL, Cohen LS, Moline ML, Kahn DA, Carpenter D, Docherty JP, Ross RW: Treatment of depression in women; a

summary of the expert consensus guidelines. *J Psychiatr Pract*. 2001;7(3):185-208.

#### ISSUE WORKSHOP 107 PSYCHIATRISTS WHO HAVE FACED MENTAL ILLNESS IN THEMSELVES: THERE IS A SILVER LINING

*Co-Chairpersons:* Michael F. Myers, M.D., *St. Paul's Hospital, Psychiatry, 1081 Burrard Street, Vancouver, BC, V6Z 1Y6, Canada*

Leah J. Dickstein, M.D., *University of Louisville School of Medicine, Psychiatry, 3006 Dunraven Drive, Louisville, KY, 40202*

*Presenters:* Melanie E. Spritz, D.O., Raymond M. Reyes, M.D., Elizabeth A. Baxter, M.D., Michael Pare, M.D., Francine Courmos, M.D.

#### EDUCATIONAL OBJECTIVES:

1. Appreciate the nature of illnesses that befall physicians
2. Understand how physicians grow through their healing
3. Learn important insights from our wise colleagues

#### SUMMARY:

In 1999, a small number of us within the American Psychiatric Association began a dialogue with the National Alliance for the Mentally Ill (NAMI). Our intention was to join hands with NAMI to fight stigma that arises when psychiatrists themselves are diagnosed with a mental illness and seek treatment. One forum is to host an annual workshop at the annual meeting of the APA. After brief opening comments, our five speakers will make 10 minute presentations. Each will pose a question to the attendees to reflect upon. Themes to be addressed include: how one's personal insights from suicidal thinking and suicide attempts can inform one's clinical work with patients and teaching of residents; how one's personal suffering with depression contributes to a more compassionate and empathic alliance with the most challenging of patients; how living through a psychotic illness and extended hospitalization enriches one's psychotherapy with individuals suffering from severe and persistent mental illness; how one's battle with social anxiety disorder, depression and a near lethal suicide attempt leads one into reaching out to medical colleagues in distress; and how being orphaned as a child, placed in foster care and struggling with depression resulted in writing a personal and well-received memoir. One third of the workshop time will be protected for lively interaction with the audience. The target audience includes: all NAMI members, residents, psychiatrists and their families, mental health professionals who treat physicians.

#### REFERENCES:

1. Baxter EA. The turn of the tide. *Psychiatric Services* 1998;49:1297-1298.
2. Courmos F: *City of One: A Memoir*. New York, WW Norton & Company, 1999.

#### ISSUE WORKSHOP 108 TEACHING HUMAN SEXUALITY TO HEALTH SCIENCE STUDENTS USING THE SEXUAL EVENTS CLASSIFICATION SYSTEM Association for Academic Psychiatry

*Co-Chairpersons:* Donald C. Fidler, M.D., *West Virginia University, Behavioral Medicine and Psychiatry, 930*

*Chestnut Ridge Hospital, Morgantown, WV, 26505*

Gregg Dwyer, M.D., *University of South Carolina/Palmetto Health Alliance, Child and Adolescent Psychiatry Residency, 3555 Harden Street Extension, 15 Medical Park, Suite 104A, Columbia, SC, 29203*

**EDUCATIONAL OBJECTIVES:**

At the conclusion of the presentation learners should be able to:  
 (1) Discuss how medical and general populations have debated about the norms and pathology of human sexual behaviors throughout history.

(2) Use the new educational instrument: the Sexual Events Classification System (SECS), for teaching professional health students about human sexuality.

(3) Teach with a comprehensive and non-judgmental multi-dimensional approach similar to the Diagnostic and Statistical Manual of Psychiatric Disorders' multi-axial approach to psychiatric disorders.

(4) Discuss the research findings from the presenters when they tested the SECS as a teaching tool in classes and in clinical work with medical students and psychiatry residents.

**SUMMARY:**

The presenters developed a non-judgmental, multi-axial classification (Sexual Event Classification System) for teaching about human sexuality to health professional students. The presenters used the classification in teaching medical students and psychiatry residents. The presenters will present research findings about the success of their medical student and resident programs which used the SECS. The presenters will also demonstrate to participants how they can adapt the SECS for their own teaching programs.

**REFERENCES:**

1. Book - Bullough VL: Science in the bedroom: a history of sex research. New York, NY, Basic Books: Division of Harper Collins Publishers, 1994.
2. Book - Tannahill R: Sex in history. New York, NY, Stein and Day Publishers, 1980.

**ISSUE WORKSHOP 109****IMPROVING ACCESS TO HEALTHCARE FOR HOMELESS PERSONS LIVING WITH HIV/AIDS**

*Co-Chairpersons:* Keith R. Stowell, M.D., *Western Psychiatric Institute & Clinic, University of Pittsburgh Medical Center, Psychiatry, 3811 O'Hara Street, Pittsburgh, PA, 15213*

Antoine B. Douaihy, M.D., *Western Psychiatric Institute & Clinic, University of Pittsburgh Medical Center, Psychiatry, 3811 O'Hara Street, Pittsburgh, PA, 15213*

*Presenter:* Ann L. Hackman, M.D.

**EDUCATIONAL OBJECTIVES:**

Educational Objectives: Participants will recognize the many considerations and challenges in treating homeless persons with HIV/AIDS and will understand methods of improving access to services for such individuals.

**SUMMARY:**

Co-occurrence of homelessness and HIV/AIDS poses a complex and multidimensional challenge to the full range and extent of the health care provider's clinical and systems integration skills. Existing data support the high prevalence of HIV/AIDS among homeless persons and a high percentage of persons living with HIV/AIDS being either homeless or at imminent risk of homelessness. There are many considerations and challenges that health care providers may face in caring for homeless persons with HIV/AIDS. An integrated, flexible, interdisciplinary, community-based system of care addressing the full array of medical, psychiatric/substance abuse, and housing services would optimize clinical care for this population. Areas that deserve special attention include HIV/AIDS prevention, access to comprehensive HIV and health care, utilization of ART, and adherence to ART.

The panel will briefly discuss the literature on homelessness and HIV/AIDS. We will then share case studies of homeless persons with HIV/AIDS and use the cases as a springboard for discussion about some of the important issues that arise in treating such individuals. Then with the audience, we will consider additional issues of access to care in homeless persons with HIV/AIDS and develop further ideas on how access can be improved.

**REFERENCES:**

1. Goldfinger SM, et al.: HIV, Homelessness, and Serious Mental Illness: Implications for Policy and Practice. Delmar, NY: National Resource Center on Homelessness & Mental Health, 1998.
2. Klinkenberg WD, et al.: Prevalence of human immunodeficiency virus, hepatitis B, and hepatitis C among homeless persons with co-occurring severe mental illness and substance use disorders. *Compr Psychiatry* 2003; 44:292-302.

## ADVANCES IN MOOD DISORDERS

*Chairpersons:* David J. Kupfer, M.D., *University of Pittsburgh, Department of Psychiatry, 3811 O'Hara Street, Room 210, Pittsburgh, PA, 15213-2593*

*Presenters:* A. John Rush, M.D., Mark S. George, M.D., David J. Kupfer, M.D.,

### EDUCATIONAL OBJECTIVES:

Participants should be able to appreciate more clearly clinical and treatment advances in mood disorders. There will be specific emphasis on new diagnostic approaches as well as innovative treatment approaches.

### SUMMARY:

From a world public health perspective, bipolar disorder is one of the 10 most disabling conditions. Clinicians and investigators have realized that bipolar disorder may require more than monotherapy directed to an episodic illness which in many cases is a recurrent chronic disorder. In the last decade, several important issues have emerged: 1) the onset of this disorder occurs much earlier than previously thought which has heightened the need to diagnose early and treat bipolar disorder in childhood and adolescents. 2) In most patients with bipolar disorder, the amount of time spent in depression is considerably greater than in mania or in a mixed state condition. 3) The increasing awareness that bipolar disorder is associated with a medical burden derived from medical disease and the adverse effect potential of the treatments used for bipolar disorder. 4) The demonstration that specific targeted psychosocial interventions might alleviate the clinical course of bipolar disorder and decrease the likelihood of either mania or depression over a maintenance treatment period. This presentation will draw on several of the contributions of our mood disorder book "American Psychiatric Publishing Textbook of Mood Disorders" and point out how these four factors are changing our clinical approaches in treating bipolar disorder. These factors also stress the importance of diagnostic classifications that utilize both categorical and dimensional approaches.

Supported in part by NIMH grants MH30915 and MH29618

### REFERENCES:

1. Frank E, Kupfer DJ, Thase ME, et al: Two-year outcomes for interpersonal and social rhythm therapy in individuals with bipolar I disorder. *Arch Gen Psychiatry* 2005;62:996-1004.
2. Kupfer DJ: The increasing medical burden in bipolar disorder (Commentary). *JAMA* 2005; 293:2528-2530.

## NEW SOMATIC INTERVENTIONS FOR MOOD DISORDERS

### EDUCATIONAL OBJECTIVES:

Participants should be able to appreciate more clearly clinical and treatment advances in mood disorders. There will be specific emphasis on new diagnostic approaches as well as innovative treatment approaches.

### SUMMARY:

Recent intellectual and technological advancements are converging to create a fertile revival in using somatic therapies for mood disorders. These new therapies are beginning to move into clinical practice, largely augmenting the more traditional pharmacological, behavioral, cognitive and psychoanalytic therapeutic approaches. First, over two decades of imaging research have now identified that key brain regions are important for homeostatic regulation of emotion and anxiety, and are dysfunctional in patients with mood disorders. These include the insular and orbitofrontal, anterior cingulate, medial and dorsolateral prefrontal cortex. Second, in addition to this regional neuroanatomic knowledge, neuroscientists using single cell recordings, single cell stimulation, microdialysis and cultured neural

networks are advancing knowledge of the "electrical" half of the electrochemical brain. Finally, engineers and neuroscientists have been transforming the technologies behind brain stimulation, allowing for evermore direct, discrete, and less invasive stimulation methods.

These three currents have fueled the recent explosion of new methods. Some of the somatic treatments purposefully produce focal or generalized seizures (ECT, MST, FEAT, FEAST). Others are non-convulsive (rTMS, VNS, DBS). This talk reviews the latest knowledge with these techniques, focusing on acute and chronic treatment of mood disorders. As of 9/05, two of these techniques are FDA approved (ECT, VNS), with other applications pending (e.g TMS). Psychiatrists will likely have increasing options for using the somatic treatments for their mood-disordered patients.

### REFERENCES:

1. Kozel FA, George MS. Meta-analysis of left prefrontal repetitive transcranial magnetic stimulation (rTMS) to treat depression. *Journal of Psychiatric Practice*. 8(5):270-5, 2002 Sep.
2. George et al. A one-year comparison of vagus nerve stimulation with treatment as usual for treatment-resistant depression. *Biological Psychiatry*. 58(5):364-73, 2005 Sep 1.

## ADVANCES IN MOOD DISORDERS

### EDUCATIONAL OBJECTIVES:

Participants should be able to appreciate more clearly clinical and treatment advances in mood disorders. There will be specific emphasis on new diagnostic approaches as well as innovative treatment approaches.

### SUMMARY:

Treatment guidelines summarize the nature of available of information that recommends potential treatments. Treatment algorithms go one step further -- often recommending both the range of treatments (strategies), the order in which various treatments should be used (e.g., monotherapy before combination), and the methods by which to deliver the treatments (e.g., when to raise or hold the dose, how long to try a treatment) (tactics). All algorithms to date require the regular measurement of depressive symptom severity and side effect burden at each visit, to provide systematic metrics by which to guide treatment implementation.

This presentation reviews the pros and cons of using algorithms, the evidence for their effectiveness, and the clinical methods needed to assess symptoms and side effects. It will also review the STAR\*D findings that compare alternative treatments at several sequenced treatment steps (e.g., after an initial SSRI failure, is a switch to another SSRI or to a dual action agent more effective?) Whether efficacy of algorithms is accounted for by the specific treatment steps entailed in algorithms, or simply by the diligent measurement of symptoms and side effects at each visit will be discussed.

### REFERENCES:

1. Rush AJ, Fava M, Wisniewski SR, et al.: Sequenced Treatment Alternatives to Relieve Depression (STAR\*D): Rationale and design. *Controlled Clinical Trials*, 25(1):119-142, 2004.
2. Adli M, Bauer M, Rush AJ: Algorithms and Collaborative Care Systems for Depression: Are they effective and why? Submitted to *Biol Psych* 2005.

## RECENT STUDIES IN PSYCHOTIC DEPRESSION

### SUMMARY:

Major depression with psychotic features is a relatively common subtype of the disorder with pronounced morbidity and mortality.

This presentation will review recent studies on epidemiology, biology, neuropsychology, and treatment of the disorder.

A recent community study of 19,000 subjects in 5 European countries reported to a current prevalence of major depression of ca. 2.4% of whom 0.4% were delusional. This represented nearly 19% of subjects who met criteria for major depression. Increased activity of the Hypothalamic Pituitary Adrenal (HPA) axis has been frequently described in the disorder. A recent study reported significantly elevated serum cortisol levels from 6 p.m. to 4 a.m. in keeping with the original studies in the disorder by Sachar and colleagues over 30 years ago. Several studies have reported cognitive deficits in working memory, executive function, and verbal memory ? tasks

that are mediated by prefrontal, anterior cingulate and mediotemporal/hippocampal regions. In regard to treatment, recent data are presented on the efficacy of combining the atypical antipsychotic, olanzapine, with an SSRI, fluoxetine, as are data on efficacy of mifepristone, a glucocorticoid receptor antagonist in the disorder. Last, data from recent study pointing to excessive mortality with the disorder are presented.

#### REFERENCES:

1. Fleming SK, Blasey C, Schatzberg AF: Neuropsychological correlates of psychotic features in major depression disorders: a review and meta-analysis. *J Psychiatr Res* 2004; 38(1):27-35
2. Education Objectives: To provide an overview of psychotic major depression. To discuss recent data on treatment of the disorder.

## ADVANCES IN PERSONALITY DISORDERS

*Chairpersons:* John M. Oldham, M.D., *Medical University of South Carolina, Department of Psychiatry, 67 President Street, Charleston, SC, 29425*

*Co-Chairpersons:* Glen O. Gabbard, M.D., Donna S. Bender, Ph.D., *New York State Psychiatric Institute, Department of Personality Disorders, 1051 Riverside Drive, Box 129, New York, NY, 10032*

*Presenters:* Martin Bohus, M.D., Leslie C. Morey, Ph.D., Thomas G. Gutheil, M.D., Andrew E. Skodol II, M.D., Drew Westen, Ph.D.

### EDUCATIONAL OBJECTIVES:

At the completion of this symposium, participants will be informed of new developments in research and treatment relating to personality disorders, with special emphasis on models of classification, longitudinal course, boundary issues, and gender issues.

### SUMMARY:

Interest in personality types has been longstanding and worldwide. Progress in our understanding of personality disorders has been a more recent phenomenon, but a rapidly accelerating one. Donna Bender, Andy Skodol, and I, judging the time to be right, took on the challenge to edit a current and comprehensive volume on the topic, which was published in 2005 *The American Psychiatric Publishing Textbook of Personality Disorders*. We assembled as many of the best experts in the field as we could, to produce a thorough and informative survey of what is now known about the personality disorders. This symposium, *Advances in Personality Disorders*, draws from that new Textbook to present selected, updated reviews from a much larger scope of material. We begin with a focus on theories of personality pathology, presented by Drew Westen. Andy Skodol then will highlight aspects of the manifestations and clinical diagnosis of personality disorders, augmented by new findings from the NIMH-supported Collaborative Longitudinal Personality Disorders Study. The third presentation, by Tom Gutheil, will focus on professional boundary issues, of particular importance in the treatment of patients with personality disorders. He will be followed by Les Morey with an update on gender issues impacting the prevalence, diagnosis, and development of personality disorders. Finally, Martin Bohus will present an update on neurobiological and neuroimaging research. These presentations will then be discussed by one of the leading experts in the field of personality disorders, Glen Gabbard, who was also one of the Associate Editors of the Textbook.

## THEORIES OF PERSONALITY AND PERSONALITY DISORDERS

### EDUCATIONAL OBJECTIVES:

At the completion of this symposium, participants will be informed of new developments in research and treatment relating to personality disorders, with special emphasis on models of classification, longitudinal course, boundary issues, and gender issues.

### SUMMARY:

Among the dozens of approaches to personality advanced over the last century, two are of most widespread use in clinical practice: psychodynamic and cognitive-social or cognitive-behavioral (CBT). Of these psychodynamic approaches were the first to develop a conceptualization of personality disorder; CBT approaches have become more prominent in the treatment of PDs since the development of dialectical behavior therapy in the late 1980s. Two other approaches have gained increased interest among personality disorder (PD) researchers: trait psychology, one of the oldest and most enduring empirical approaches to the study of normal personality; and biological approaches, which reflect a longstanding tradition in descriptive psychiatry as well as more recent developments in behavior

genetics and neuroscience. Although most PD research today is relatively atheoretical, theories of the nature of the mind and personality underlie all approaches to treating PDs and the broader spectrum of PDs. This talk will present an overview of current theory and research from each of these four perspectives, using borderline and narcissistic PDs as exemplars. It will focus on their basic tenets, evidentiary basis, and potential for guiding clinical work.

### REFERENCES:

1. Heim A, Westen D: Theories of personality and personality disorders. In *Textbook of Personality Disorders*, edited by Oldham JM, Skodol AE, Bender DS, Arlington, VA, American Psychiatric Publishing, 2005, pp17-34.
2. Markon KE, Krueger RF, Watson D: Delineating the structure of normal and abnormal personality: an integrative hierarchical approach. *Journal of Personality and Social Psychology*, 2005, 88:139-157.

## MANIFESTATIONS AND CLINICAL DIAGNOSIS: RECENT FINDINGS FROM THE COLLABORATIVE LONGITUDINAL PERSONALITY DISORDERS STUDY

### EDUCATIONAL OBJECTIVES:

At the completion of this symposium, participants will be informed of new developments in research and treatment relating to personality disorders, with special emphasis on models of classification, longitudinal course, boundary issues, and gender issues.

### SUMMARY:

The Collaborative Longitudinal Personality Disorders Study (CLPS) was developed to fill gaps in our understanding of the nature, course, and impact of personality disorders (PDs). Here, we review recent findings from the CLPS, discuss their implications for current concepts and the clinical diagnosis of PDs, and raise questions that warrant future consideration. We have found that PDs are more stable than major depressive disorder, but that meaningful symptomatic improvements are possible and not uncommon, especially among younger patients. We have also found, however, that PDs constitute a significant public health problem with respect to persistent functional impairment, continued utilization of intensive and costly treatments, negative prognostic impact on Axis I disorders, and suicide risk. Although comorbidity among PDs is extensive, a hierarchy between them has not been empirically supported. In addition, we have demonstrated that dimensional models of PDs have clinical validity that categories do not, including greater temporal stability and better prediction of functioning over time. Furthermore, dimensional personality traits appear to be the foundation of behaviors described by many PD criteria. Taken together, our results continue to support a hybrid concept of PDs consisting of stable personality traits and intermittently expressed symptomatic behaviors. This work is funded by NIMH.

### REFERENCES:

1. Skodol AE, Shea MT, McGlashan TH, Gunderson JG, Morey LC, Sanislow CA, Bender DS, Grilo CM, Zanarini MC, Yen S, Pagano ME, Stout RL: The Collaborative Longitudinal Personality Disorders Study (CLPS): overview and implications. *J Personal Disord*, in.
2. Skodol AE, Shea MT, McGlashan TH, Gunderson JG, Morey LC, Sanislow CA, Bender DS, Grilo CM, Zanarini MC, Yen S, Pagano ME, Stout RL: The Collaborative Longitudinal Personality Disorders Study (CLPS): overview and implications. *J Personal Disord*, in.

**BOUNDARY ISSUES AND PERSONALITY DISORDERS****EDUCATIONAL OBJECTIVES:**

At the completion of this symposium, participants will be informed of new developments in research and treatment relating to personality disorders, with special emphasis on models of classification, longitudinal course, boundary issues, and gender issues.

**SUMMARY:**

The speaker will first present an overview of the basic elements of boundary theory and clarifies the distinction between boundary crossings and boundary violations. The concepts of context dependence, power asymmetry, and fiduciary duty as they relate to boundary problems are also discussed. The intrinsic and extrinsic consequences of boundary problems are reviewed. The extrinsic consequences fall into three major categories: civil lawsuits, complaints to the board of registration, and complaints to professional societies. The presenter will then review types of boundary issues that arise in relation to histrionic, dependent, antisocial, and borderline personality disorders. Countertransference issues that arise in working with patients with personality disorders are discussed, as well as cultural differences that may affect the perception of boundary problems. The presentation will end a list of risk management principles and recommendations for avoiding boundary problems in the therapeutic relationship.

**REFERENCES:**

1. Gutheil TG: Borderline personality disorder, boundary violations and patient-therapist sex: medicolegal pitfalls. *Am J Psychiatry* 146:597-602, 1989.
2. Gutheil TG, Gabbard GO: The concept of boundaries in clinical practice: theoretical and risk management dimensions. *Am J Psychiatry* 150:188-196, 1993.

**GENDER AND PERSONALITY DISORDER****EDUCATIONAL OBJECTIVES:**

At the completion of this symposium, participants will be informed of new developments in research and treatment relating to personality disorders, with special emphasis on models of classification, longitudinal course, boundary issues, and gender issues.

**SUMMARY:**

**Objective:** This presentation provides an overview of research findings on the issue of gender as a factor in the diagnosis and development of personality disorders.

**Method:** Three literatures will be reviewed: the literature on gender differences in prevalence of personality disorders; on the issue of gender bias, and research relevant to this issue; and on the role of biological factors, and their interplay with social factors, as influences upon personality disorder.

**Results:** The research literature consistently suggests differences in the prevalence rates of certain personality disorders. There is little evidence to suggest that observed differences are purely a function

of systematic biases. While gender differences have been explained primarily in terms of the differential socialization and life experiences of males and females, it appears significant that socialization in many instances elaborates on innate behavioral tendencies.

**Conclusion:** While the proportion of men and women meeting criteria for personality disorders in general appear to be roughly equivalent, there appear to be replicable differences in how each gender manifests these problems. Although the topic has been discussed extensively, there is limited evidence of the operation of gender bias in personality disorder diagnoses. The differences likely arise from complementary forces of nature and nurture on the development of personality.

**REFERENCES:**

1. Boggs CD, Morey LC, Skodol AE, Shea MT, Sanislow CA, Grilo C, McGlashan T, Zanarini MC, Gunderson JG: Differential impairment as an indicator of sex bias in DSM-IV criteria for four personality disorders. *Psychological Assessment*, in press.
2. Morey LC, Alexander GM, Boggs C: Gender, in *The American Psychiatric Publishing Textbook of Personality Disorders*. Edited by Oldham JM, Skodol, AE, Bender DS. Arlington, VA, American Psychiatric Publishing, 2005, pp. 541-560.

**UPDATE ON NEUROBIOLOGY AND NEUROIMAGING IN BORDERLINE PERSONALITY DISORDER AND RELATED PERSONALITY DISORDERS****EDUCATIONAL OBJECTIVES:**

At the completion of this symposium, participants will be informed of new developments in research and treatment relating to personality disorders, with special emphasis on models of classification, longitudinal course, boundary issues, and gender issues.

**SUMMARY:**

The last years have seen a rapid progress in our understanding of the neurobiology underlying Borderline Personality Disorder (BPD). The purpose of this presentation is to summarize the biological findings of the recent past, and conceptualize BPD and related personality disorders on a phenomenological and biological level. The central dimensions of BPD, namely affective dysregulation, impulsivity, and dissociation/self-injurious behavior will be conceptualized phenomenologically and the biological correlates of these dimensions will be reviewed. Finally, an outlook regarding psychological and pharmacological treatment options will be given.

**REFERENCES:**

1. Bohus M, Haaf B, Stiglmayr C, Pohl U, Böhme R, Linehan M: Evaluation of inpatient dialectical-behavioural therapy for borderline personality disorder: a prospective study. *Behaviour Research and Therapy* 2000; 238:875-887.
2. Bohus M, Haaf B, Simms T, Schmahl C, Unckel C, Linehan M: Effectiveness of inpatient dialectical behavioral therapy for borderline personality disorder: a controlled trial. *Behavior Research and Therapy* 2004; 42:487-499.

# ADVANCES IN PSYCHODYNAMIC PSYCHOTHERAPY: THE STATE OF THE ART

*Chairpersons:* Glen O. Gabbard, M.D.

*Presenters:* Peter Fonagy M.D., Drew Westen, Ph.D., Kenneth M. Levy M.D., Robert Michels, M.D., *Baylor College of Medicine, Department of Psychiatry, 6655 Travis, Suite 500, Houston, TX, 77030*

## EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will be able to demonstrate knowledge about the empirical data supporting psychodynamic psychotherapy.

## SUMMARY:

To inform participants about the latest clinical and research developments in psychodynamic psychotherapy. Method: Five presentations will be made. First, will provide an overview of the "state of the art" of dynamic psychotherapy. Then Ken Levy will present the results of a randomized controlled trial that compares transference-focused psychotherapy, supportive therapy and dialectical behavior therapy in the treatment of borderline personality disorder. The third presenter will be Peter Fonagy, who will discuss outcome research using mentalization-based treatment with patients who have borderline personality disorder. The fourth presenter will be Drew Westen who will discuss his research on personality disorders. The fifth and last presentation will come from Robert Michels, whose topic will be "The Psychiatric Interview: New Perspectives from Psychodynamic Psychiatry." Results: Psychodynamic psychotherapy is gaining increased empirical support for its basic premises and for its effectiveness as a treatment. Conclusion: Psychodynamic psychotherapy is a vital part of psychiatry that informs everything the psychiatrist does and allows for a more profound understanding of the patient. New research is confirming its value as a treatment and as a way to understand human behavior. Funding source: none.

## REFERENCES:

1. Gabbard GO: Long-Term Psychodynamic Psychotherapy: a Basic Text, Arlington, VA; APPI, 2004.
2. Gabbard GO: Psychodynamic Psychiatry in Clinical Practice: Fourth Edition. Arlington, VA, American Psychiatric Press, 2005.

## THE PSYCHIATRIC INTERVIEW: NEW PERSPECTIVE FROM PSYCHODYNAMIC PSYCHIATRY

### SUMMARY:

Psychodynamic perspectives on interviewing were once central, but for many they have been displaced by modern phenomenologic diagnoses, neurobiologic models of etiology and new pharmacologic strategies of treatment. However they remain central in understanding the clinical process and in adapting to changing cultural attitudes concerning the doctor-patient relationship. In addition the expansion of psychodynamic thinking to encompass multiple theoretical models such as ego psychology, self psychology, contemporary Kleinian theory, relational and intersubjective approaches, object relations theory and Lacanian notions have further enhanced its value to the psychiatric interviewer. As long as the patient's subjective experience is critical to the database of clinical psychiatry, psychodynamics will make an important contribution to clinical epistemology.

## REFERENCES:

1. Mackinnon, RA, Michels R, Buckley PB. The Psychiatric Interview on Clinical Practice, 2nd Edition. Washington, DC: American Psychiatric Press; Inc., 2006 (in press).

2. Gabbard GO: Psychodynamic Psychiatry in Clinical Practice: 4th Edition. Washington, DC: American Psychiatric Press; Inc., 2005.

## TRANSFERENCE AND COUNTERTRANSFERENCE IN PERSONALITY DISORDERS: TURNING CLINICAL OBSERVATIONS INTO REPLICABLE DATA

### SUMMARY:

The concept of transference has broadened from its original theoretical casting in Freudian drive theory to a broader recognition, applicable to many forms of treatment, that patients often express enduring relational patterns in the therapeutic relationship. Similarly, the concept of countertransference has broadened from an initial focus on its idiosyncratic and counterproductive elements to the way it provides a window into the feelings, representations, and enactments that the patient may draw from others. Recent research has begun to address transference and countertransference phenomena empirically, by developing clinically and psychometrically sophisticated instruments for allowing clinicians to describe their interactions with their patients and aggregating across data from hundreds of cases to provide quantified accounts of both the dimensions of transference and countertransference commonly seen in clinical practice and the types of transference and countertransference reactions commonly elicited by patients with particular kinds of personality disturbance or development history (e.g., of significant separations or abuse). This talk describes this research and provides an empirical description of the nature of transference and countertransference in borderline and narcissistic patients. The data provide striking support for many hypotheses from ego psychology, object relations and self psychology, and attachment theory.

## REFERENCES:

1. Betan, E., Heim, A., Zittel, C., & Westen, D. (2005). Countertransference phenomena and personality pathology in clinical practice: An empirical investigation. *American Journal of Psychiatry*, 162: 890-898.
2. Bradley, R., Heim, A., & Westen, D. (2005). Transference phenomena in the psychotherapy of personality disorders: An empirical investigation. *British Journal of Psychiatry*, 186, 342-349

## THE MENTALIZATION-BASED TREATMENT APPROACH TO BPD: ENCOURAGING OUTCOMES FROM A NEW PSYCHODYNAMIC THERAPY

### SUMMARY:

This presentation will briefly summarize the mentalization-based treatment model for borderline personality disorder. Experimental data relevant to the model will be summarized together with the results of two randomized controlled trials. The results of these trials will be reported in the context of a meta-analysis of psychosocial treatment trials for BPD.

## REFERENCES:

1. Fonagy, P., & Bateman, A. W. (2006). Mechanisms of change in mentalization-based treatment of BPD. *Journal of Clinical Psychology*, 62(4), 411-430. Bateman, A., & Fonagy, P. (2004). Mentalization based treatment of borderline personality disorder. *Journal of Personality Disorders*, 18(1), 36-51.
2. Bradley, R., Heim, A., & Westen, D. (2005). Transference phenomena in the psychotherapy of personality disorders: An empirical investigation. *British Journal of Psychiatry*, 186, 342-349.



## ADVANCES IN PSYCHOPHARMACOLOGY

Chair: Alan F. Schatzberg, M.D., Psychiatry & Behavior Science, Stanford University School of Medicine, 400 Quarry Road, Administrative Office # 300, Stanford, CA 94305; Co-Chair: Charles B. Nemeroff, M.D.; Presenters: Paul E. Keck, M.D., William M. McDonald, M.D., David V. Sheehan, M.D., Ranga Krishnan, M.D., Jeffrey Lieberman, M.D.

### EDUCATIONAL OBJECTIVES:

To provide an update on key recent advances in the treatment of bipolar disorder, major depression, schizophrenia, and anxiety disorders.

### SUMMARY:

This is an update on key chapters in the Textbook of Psychopharmacology (3rd Edition) and the follow-on text, the Essentials of Clinical Psychopharmacology (2nd Edition). The symposium will address 5 major areas of pharmacologic or device oriented therapies: bipolar disorder monoamine oxidase inhibitor; brain stimulation techniques atypical antipsychotics; and anxiety disorders. Paul Keck will address recent advances in the management of bipolar disorders focusing on newer anticonvulsants and atypical antipsychotic strategies. Ranga Krishnan will present on transdermal selegiline patch for major depression. William McDonald will review recent studies on brain stimulation techniques in major depression including Vagal Nerve Stimulation (VNS), Deep Brain Stimulation (DBS), Rapid Transmagnetic Stimulation (rTMS) as well as Electroconvulsive Therapy (ECT). Jeffrey Lieberman will review recent data on atypical antipsychotic agents. Last, David Sheehan will present on recent studies in anxiety disorders, including substance P antagonists, mixed norepinephrine-serotonin reuptake inhibitors, etc. Clinical implications of recent studies will be discussed.

### REFERENCES:

1. Schatzberg AF, Nemeroff CB (eds): Textbook of Psychopharmacology (Third Edition). Washington, American Psychiatric Press, 2004.
2. Schatzberg, AF, Nemeroff CB (eds): Essentials of Clinical Psychopharmacology (2nd Edition). Washington, American Psychiatric Press, 2006.

## ADVANCES IN THE PHARMACOTHERAPY OF GAD

### SUMMARY:

Generalized anxiety disorder is a syndrome, a collection of symptoms affecting a variety of body systems and a disorder associated with work and social disability, economic consequences and frequent comorbidity with other axis one psychiatric disorders. The presence of the GAD symptoms with an associated comorbid psychiatric disorder is often a marker of severity of the comorbid disorder. Not infrequently it is the comorbid disorder that should be the first target of treatment rather than the GAD symptom cluster itself.

Faced with this array of possible treatment targets how should the practicing clinician prioritize treatment interventions and augmentation strategies to achieve a good outcome against all dimensions of the disorder and the majority of cases encountered?

SSRIs and SNRIs are first-line treatments in GAD. Other treatments include benzodiazepines and buspirone, tricyclic antidepressants, monoamine oxidase inhibitors, novel antidepressants, anticonvulsants and atypical neuroleptics and tiagabine, a GABA reuptake inhibitor, and the selective GABA agonists pregabalin and gabapen-

tin. Yet the evidence in support of many of these treatments in GAD is limited.

The application of these treatment strategies will be illustrated using clinically practical algorithms.

### REFERENCES:

1. Keck PE, Strawn JR, McElroy SL. Pharmacologic Treatment Considerations in Co-occurring Bipolar and Anxiety Disorders. *J Clin Psychiatry* 2006;67:Suppl 1:8-15.
2. Raj BA, Sheehan DV. Antidepressants in the treatment of Generalized Anxiety Disorder. Chapter 11 In: *Generalized Anxiety Disorder*. Edited by Clive Lawson, London, UK, Martin Dunitz Ltd, 2002, pp.136-152.

## BRAIN STIMULATION TECHNIQUES IN PSYCHIATRY

### SUMMARY:

Since electroconvulsive therapy (ECT) was first administered by Cerletti and Bini to a psychotic patient in 1938, brain stimulation techniques have been investigated to treat psychiatric disorders particularly when the disorders were resistant to other somatic therapies. This lecture will review the history of brain stimulation techniques including ECT, transcranial magnetic stimulation (TMS), vagal nerve stimulation (VNS) and deep brain stimulation (DBS) and discuss their use in the treatment of mood disorders.

### REFERENCES:

1. McDonald WM, Thompson TR, McCall WV, Zorumski C: Electroconvulsive therapy. Textbook of Psychopharmacology, 3rd Edition. Schatzberg AF, Nemeroff CB (Eds). Am Psych Press: 685-717, 2004.
2. McDonald WM, McCall VW, Epstein CM: Electroconvulsive therapy: Sixty years in progress and a comparison with transcranial magnetic stimulation and vagal nerve stimulation. In *Neuropsychopharmacology the Fifth Generation of Progress*. Davis KL, Charney D, Coyle JT, Nemeroff C (Eds), 1097-1108, Lippincott Williams & Wilkins: Philadelphia, 2002.

## MAOI AND OTHER NEW ANTIDEPRESSANTS

### SUMMARY:

A number of new methods of treating depression have been developed over the last couple of years. Some of them are now reaching the marketplace. In this presentation we will review the current treatment approaches and then discuss the new treatments. One of the new options is Vagal nerve stimulation. The pivotal study was not positive but long term data suggest some efficacy. The second new treatment is an old drug selegiline delivered as a patch, the patch reduces the potential for food interaction. Both short term and long term studies are positive. The major side effect is application site reaction. Treatments around the horizon include agomelatine a melatonin agonist and Corticotrophin releasing factor antagonists, and NK 1 antagonists. The role of Transcranial magnetic stimulation as a potential treatment will also be discussed.

### REFERENCES:

1. Rouillon F. Efficacy and tolerance profile of agomelatine and practical use in depressed patients *Int Clin Psychopharmacol*. 2006 Feb;21 Suppl 1:S31-5.
2. Amsterdam JD. A double-blind, placebo-controlled trial of the safety and efficacy of selegiline transdermal system without dietary restrictions in patients with major depressive disorder. *J Clin Psychiatry*. 2003 Feb;64(2):208-14.

## ADVANCES IN RESEARCH

### RESEARCH ADVANCES IN PSYCHIATRY: CLINICAL IMPACT FROM SCIENCE TO POLICY

*Chairperson:* Herbert Pardes, M.D., *Co-Chairpersons:* David J. Kupfer, M.D., Leah J. Dickstein, MD, Marian I. Butterfield, MD, MPH., *Presenters:* Floyd E. Bloom, M.D., Jeffrey A. Lieberman, M.D., Katherine L. Wisner, M.D., Martha L. Bruce, Ph.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session the participant will be able to (1) understand the importance of recent advances in preclinical neuroscience and the relevance of these advances to clinical psychiatric diagnoses and treatment; (2) describe clinically relevant research advances from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) trial and how efficacy and outcomes of different antipsychotics used to treat schizophrenia may impact on mental health policy decisions (3) discuss new research on selective serotonin reuptake inhibitors in pregnancy care management; (4) understand the clinical and policy implications of research focused on improving mental health care delivery to hard-to-reach older adults.

#### SUMMARY:

Numerous research advances in psychiatry can serve to narrow the divide between science and policy, and influence our ability to advocate for people with mental illnesses. In keeping with this year's presidential theme this advances in psychiatric research session will also explore the potential influence of psychiatric research on health policy. This session is for practicing psychiatrists and researchers alike, and will highlight both gaps and links between research and policy. First, Dr. Floyd Bloom, Chair of the Department of Neuropharmacology at The Scripps Research Institute, will begin the session by addressing "Neuroscience in the Post-Genomic Era". Dr. Bloom will discuss recent research on the molecular and cellular basis for psychiatric disorders including depression, clues to the origins of schizophrenia, and discuss the use of transgenic mouse models in the development of novel medications. He will also explain how animal models relate to potential advances in the mental health care of humans and how research advances are imperiled by the rising

costs and regulations of the healthcare system. Next, Dr. Jeffrey A. Lieberman, Chairman of Psychiatry of the Department of Psychiatry at Columbia University College of Physicians and Surgeons and director of the New York State Psychiatric Institute, will provide an overview of the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) trial. He will discuss efficacy and outcomes of the different antipsychotics used to treat schizophrenia how results of this trial may impact on mental health policy decisions. Dr. Katherine L. Wisner, Professor of Psychiatry, Obstetrics, Gynecology and Reproductive Sciences and Epidemiology at the Western Psychiatric Institute and Clinic in Pittsburgh, will discuss the role of selective serotonin reuptake inhibitors in women during pregnancy. She will review clinical and policy implications from this body of research as it relates to the reproductive health of women. Dr. Martha L. Bruce, Professor of Sociology in Psychiatry at Weill Medical College of Cornell University, will present on "Improving Access to Quality Mental Health Care for Community-Dwelling, Vulnerable Older Adults." Dr. Bruce will describe challenges and results of research conducted in partnership with community-based agencies (e.g., in home healthcare, primary care, social service settings) and aimed at improving how mental health care is delivered to hard-to-reach older adults with unmet mental health needs.

#### REFERENCES:

1. Bloom FE, Reilly JF, Redwine JM, Wu CC, Young WG, Morrison JH. Mouse models of human neurodegenerative disorders: requirements for medication development. *Arch Neurol.* 2005 Feb;62(2):185-7.
2. Lieberman JA, Stroup TS, McEvoy JP, Swartz MS, Rosenheck RA, Perkins DO, Keefe RS, Davis SM, Davis CE, Lebowitz BD, Severe J, Hsiao JK; Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) Investigators Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. *N Engl J Med.* 2005 Sep 22;353(12):1209-23.
3. Weissman AM, Levy BT, Hartz AJ, Bentler S, Donohue M, Ellingrod VL, Wisner KL. Pooled analysis of antidepressant levels in lactating mothers, breast milk, and nursing infants. *Am J Psychiatry.* 2004 Jun;161(6):1066-78.
4. Bruce ML, Van Citters AD, Bartels SJ. Evidence-based mental health services for home and community. *Psychiatr Clin North Am.* 2005 Dec;28(4):1039-60.

## ADVANCES IN SCHIZOPHRENIA

### DOPAMINE AND GLUTAMATE INTERACTIONS IN THE PATHOLOGY OF SCHIZOPHRENIA: INSIGHTS FROM NEW IMAGING

*Chairpersons:* Jeffrey A. Lieberman, *Columbia University Medical Center, Department of Psychiatry, 1051 Riverside Drive, Unit 4, New York, NY, 10032*

*Presenters:* Diana O. Perkins, M.D., Patrick F. Sullivan, M.D., Marc Laruelle, M.D., Thomas S. Stroup, M.D.

#### SUMMARY:

Schizophrenia is associated with increased synaptic dopamine in associative rather than limbic regions of the striatum: implications for mechanisms of actions of antipsychotic drugs.

**Background.** Over the last decade, a convergent body of imaging studies have documented that schizophrenia is associated with increased dopamine (DA) function in the striatum. A limitation of previous studies is that DA function was measured at the level of the striatum as a whole. However, the striatum is an heterogeneous region. The striatum is divided into limbic, associative and sensorimotor functional subregions, based on the origin of cortical projections. We previously documented that high resolution PET imaging with ECAT HR+ enables valid measurement of the radioactive signal generated in these striatal subregions.

**Method.** We report here the results of a new imaging study, performed in 18 untreated patients with schizophrenia (SCH) and 18 matched controls (CTR). Subjects were scanned with [<sup>11</sup>C]raclopride at baseline and after acute DA depletion induced by alpha-methyl-para-tyrosine (AMPT). The difference in D2 receptor availability between the baseline and DA depleted scans provided an index of occupancy of D2 receptors by DA at baseline. Five regions of interest were analyzed: ventral striatum (VST), precommissural dorsal caudate (preDCA), precommissural dorsal putamen (preDPU), postcommissural caudate (postCA) and postcommissural putamen (post PU).

**Results.** AMPT-induced increase in D2 receptor availability was significantly higher in SCH compared to CTR in preDCA, but not in the VST or in other striatal subregions. This result suggests that SCH is associated with increased D2 receptor transmission in the preDCA, the area of the striatum that receives the most dense projections from the dorsolateral prefrontal cortex (DLPFC).

**Implications.** Two implications will be discussed: 1) This result questions the widely accepted view that the therapeutic effects of antipsychotic drugs derive from D2 receptor blockade in the limbic striatum (i.e. nucleus accumbens in rodents) while D2 receptor blockade in the dorsal striatum is only responsible for motor side effects; 2) While subcortical DA dysregulation has historically been conceptualized as consequence of DLPFC dysfunction, these findings suggest that alterations of subcortical DA transmission in SCH might in turn negatively impact on DLPFC function, by preventing glutamate mediated flow of information in DLPFC-preDCA-thalamic-DLPFC loops.

#### REFERENCES:

1. Laruelle M, Kegeles LS, Abi-Dargham A. (2003) Glutamate, Dopamine, and Schizophrenia: From Pathophysiology to Treatment. *Ann N Y Acad Sci* 1003:138-158.

2. Laruelle M, Frankle WG, Narendran R, Kegeles LS, Abi-Dargham A. (2005) Mechanism of action of antipsychotic drugs: from dopamine D(2) receptor antagonism to glutamate NMDA facilitation. *Clin Ther* 27 Suppl A:S16-24.

### A REVIEW OF THE GENETICS OF SCHIZOPHRENIA

#### EDUCATIONAL OBJECTIVES:

The learner will be able to describe and discuss cogently (a) the current state of the science for the genetics of schizophrenia and (b) the possible outcomes of the next generation of studies.

#### SUMMARY:

Schizophrenia is an often devastating neuropsychiatric illness whose etiology remains unknown. Genetic factors have been strongly and consistently implicated via family, adoption, and twin studies. Historically, the genetics of schizophrenia have been controversial due to a pattern of highly publicized single studies followed by non-replications. In the brief history of efforts to dissect the genetic basis of complex human disorders like schizophrenia, few association or linkage studies have had realistic statistical power. Currently, there are several positive and plausible findings—some are supported by several independent genetic studies (e.g., NRG1 and DTNBP1) and others appear promising (e.g., AKT1 and ZDHHC8). No finding currently meets an appropriately rigorous definition of replication. There is considerable uncertainty about which findings are true and upon which to build the next generation of schizophrenia research. The stakes are high—for psychiatry and schizophrenia research—and even one true finding would be a momentous advance whereas false leads are damaging. A set of large studies are beginning that potential to deliver true genotype-phenotype associations with schizophrenia or that will provide falsification of one of the dominant paradigms in schizophrenia research.

#### REFERENCES:

1. Harrison PJ, Weinberger DR. Schizophrenia genes, gene expression, and neuropathology: on the matter of their convergence. *Mol Psychiatry* 2004;10(1):40–68.
2. Sullivan PF. The genetics of schizophrenia. *PLoS Medicine* 2005;2:614–618.

### EVALUATION AND TREATMENT OF A FIRST PSYCHOTIC EPISODE

#### EDUCATIONAL OBJECTIVES:

In this presentation the clinical features that characterize the pre-morbid, prodromal, and first episode phases of schizophrenia are reviewed. The current understanding of optimal treatment of the first episode is discussed. In particular, recognition and treatment of psychosis soon after illness onset may improve outcomes; however treatment delay continues to be a public health concern. While pharmacological treatment continues to be the cornerstone of treatment, other modalities including individual, group, and family therapies may increase likelihood of full recovery.

#### REFERENCES:

1. Perkins DO, Gu H, Boteva K, Lieberman JA: Duration of Untreated Psychosis and Outcome in Schizophrenia. *American Journal of Psychiatry* 2005; 162:1785-1804.
2. Lieberman JA, Stroup TS, Perkins DO (eds): *Textbook of Schizophrenia*. Washington, DC, American Psychiatric Press, 2006.

## CLINICAL CASE CONFERENCES

### HONORABLE DISCHARGE: SEVERE BRAIN INJURY AND PSYCHOLOGICAL SYMPTOMS IN A FEMALE VETERAN

Susan Stabinsky, M.D., *Veterans Administration Hudson Valley Health Care System, FDR Campus, Building 13- Room 10, 2094 Albany Post Road, Montrose, NY 10548*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participants will be able to: 1) appreciate the complexity of co-morbid conditions in brain-injured patients; 2) recognize the psychiatric complications of traumatic brain injury; 3) understand the role of alcohol/substance abuse in the management of a brain-injured patient with psychological symptoms and seizure disorder.

#### SUMMARY:

Traumatic Brain Injury (TBI) is a significant problem that affects millions of people in the USA. Many neuropsychiatric symptoms such as cognitive deficits, depression, mania, anxiety disorders such as PTSD, psychosis and sleep disturbances are common after TBI. In addition, the existence of an organic Borderline Personality Disorder has been postulated as a result of brain injury. Alcohol abuse or dependence is also a frequent co-occurring condition among patients who have had a traumatic brain injury and complicates the situation particularly if the brain-injured patient also has a seizure disorder. This case conference will focus on the diagnostic dilemmas and the complexities of a case of a female veteran who had a traumatic brain injury with depression, PTSD, Borderline Personality Disorder and Alcohol Dependence.

#### REFERENCES:

1. Jorge RE. Alcohol Misuse and mood disorders following traumatic brain injury. *Arch Gen Psychiatry*. 01 July 2005. 62(7): 742-49.
2. Major Depression following traumatic brain injury. *Arch Gen Psychiatry*. 01 Jan 2004. 62(1): 42-50

### SEALED WITH A KISS: USING THE SEXUAL HISTORY IN PSYCHODYNAMIC PSYCHOTHERAPY

Jennifer I. Downey, M.D. *Columbia University College of Physicians & Surgeons, Department of Psychiatry, 108 E. 91st Street #1A, New York, NY, 10128*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant will be able to 1) discuss sexual development in psychiatric patients; 2) discuss the significance of the sexual history in clarifying the etiology of symptoms in psychiatric patients; 3) discuss the significance of the sexual history in formulating treatment plans for psychiatric patients.

#### SUMMARY:

Psychodynamic aspects of sexuality are central to an adequate understanding of many patients. This case presentation and discussion will illustrate how to use sexual psychodynamics in assessment and treatment. The case concerns a young woman whose severe chronic depression did not respond to multiple interventions. Knowledge of her sexual history as well as her development and experiences in her family of origin made it possible to conceptualize her treatment in a new light.

#### REFERENCES:

1. Friedman RC, Downey JI: Sexual fantasies in men and women. In *Sexual Orientation and Psychoanalysis: Sexual Science and*

*Clinical Practice*. New York, Columbia University Press, 2002, pp. 5-37.

2. Leitenberg H, Henning K. Sexual fantasy. *Psychological Bulletin* 1995; 117: 469-496.

### ROCKING THE CRADLE: A CASE OF POSTPARTUM INFANTICIDE

Nicole F. Wolfe, M.D., *Dorothea Dix Hospital, 8413 Aptos Court, Raleigh, NC 27613*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant will be able to (1) Understand the concept and diagnosis of postpartum psychosis in infanticide (2) Identify symptom clusters in the presentation of postpartum psychosis (3) Understand the variety of approaches to sentencing and treatment considerations in different jurisdictions.

#### SUMMARY:

The case of a first-time mother with no previous psychiatric history and severe postpartum depression is presented in detail. The conference will include discussion of the unfolding of events and treatment approaches in this case, as well as a broader presentation of the symptom clusters which can be found in postpartum depression and psychosis. The panel, which includes forensic psychiatrists from different areas of the country, will delineate various approaches to legal understanding and disposition and the need for ongoing treatment.

#### REFERENCES:

1. Spinelli MG (ed). *Infanticide: Psychosocial and Legal Perspectives on Mothers Who Kill*. Arlington, VA: American Psychiatric Publishing Inc., 2004.

### CROSSING THE LINE: DETERMINING YOUR PATIENT IS TOO DANGEROUS TO DRIVE

Carl B. Greiner, M.D., *University of Nebraska Medical Center, 985582 Nebraska Medical Center, Omaha, NE 68198-5582*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant will be able to 1) appreciate the role of severe and persistent mental illness in impaired driving; 2) describe approaches to discussing impaired driving with the patient; 3) recognize legal pitfalls in both reporting and not reporting impaired driving.

#### SUMMARY:

Impaired driving is a national concern. As psychiatrists, we examine and treat patients who may have significant mental illness and concomitant substance abuse. Our prior case conference focused on the impaired, elderly driver. This year's conference will focus on the younger, impaired driver with a more complex pattern of deficiencies.

Psychiatrists need to be alert to balancing federal requirements for privacy (HIPAA) and the need to disclose dangerous behavior. The case conference will examine "road rage," substance abuse, and cognitive deficits as examples of potential driving impairment. Clinical issues, as well as forensic and ethical perspectives, will be provided.

#### REFERENCES:

1. Weiner BA, Wettstein RM. *Legal Issues in Mental Health Care*. New York: Plenum Press, 1993.
2. Metzner JL. Commentary: Driving and Psychiatric Illness. *Journal of the American Academy of Psychiatry and the Law*. 32(1):80-82, 2004.

### CONSULT-LIAISON CASEBOOK CHALLENGE: STRATEGIES AND LIMITATIONS IN ESTABLISHING COMPETENCY

Dimitri D. Markov, M.D., *Thomas Jefferson Medical College, 1020 Sansom Street, Suite 1652, Philadelphia, PA 19107-5004*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of the presentation, the participant will be able to

(1) Understand concepts and issues involved in determining decision-making capacity; (2) Appreciate issues involved in deciding whether involuntary psychiatric commitment or determination of capacity is more appropriate; (3) Discuss issues involved in making a decision to administer psychiatric medication against a patient's will.

#### SUMMARY:

The panel will continue exploration of issues involved in determining which action is more appropriate: psychiatric commitment or determination of decisional capacity. This year's conference will center on the case of a middle-aged woman with quadriplegia and no known psychiatric history, admitted with one month's symptoms of expansive and irritable affect, pressured speech, decreased need for sleep, grandiose delusions, flight of ideas, and distractibility; in those four weeks, she had spent \$20,000. The onset of symptoms was temporarily related to starting steroids and increasing the dose of baclofen prescribed for muscle spasm. The patient's family had petitioned for involuntary commitment. Because the psychiatric unit was not licensed for the type of bed the patient needed, she was admitted to the general medical floor; since psychiatric commitment to medical floor was not possible, a clinical decision was made to declare the patient "lacking decisional capacity." The discussion will address the many complex aspects of treatment, including implications of the decisions around appropriate hospital bed disposition, the transference toward an actively psychotic patient experienced by the primary medical team, the differential diagnosis raised by steroids and other medications and organic conditions, and a decision made to medicate against her will.

#### REFERENCES:

1. Silver M (2002) Reflections on determining competency. *Bioethics* 16(5): 455-68.
2. Winick BJ (1995) The side effects of incompetency labeling and the implications for mental health law. *Psychology, Public Policy and Law* 1(1):6-42.

### CONTINUOUS CASE CONFERENCES

#### TWENTY THERAPIES LATER: ADDRESSING TRANSFERENCE, PARTS 1 AND 2

R. Rao Gogineni, M.D. *Robert Wood Johnson Medical School, Department of Psychiatry, 118 One Bala Avenue, Balacynwyd, PA 19004*

#### EDUCATIONAL OBJECTIVE:

At the conclusion of this presentation, the participant will be able to 1) appreciate the contributions of deprivation and severe multigenerational incest in development of PTSD, severe attachment issues, obesity, trichotillomania and related clinical symptoms; 2) recognize various transference phenomena (transference resistance, idealization, repression, regression, boundary crossings) and learn ways of handling them; 3) find pathways to empathy in severe incest-based actions, and foster resilience in patients.

#### SUMMARY:

A not infrequent phenomenon in any dynamic psychotherapy is the appearance of an unwillingness to understand or explore thoughts and feelings except at the most realistic level. This can be a temporary defense against anxiety or a pattern of mental life, and, as in the case presented here, can reach the point of blocking all progress in treatment. A woman in her 40s came from a severely deprived, multigenerational incestuous family, and developed severe clinical symptoms which will be presented. She had sabotaged her many previous treatments in a variety of ways which will be explored in the conference. Most effective in this treatment, however, was addressing this patient's insistence, over time and in many forms, that the psychiatrist would be interacting with her in her life outside the sessions and thus providing concrete gratifications. Tackling this transference resistance while empathizing with her sufferings and many trauma-based traits led to her greater resilience. Countertransference issues and the usefulness of supervision in handling these complex issues also will be presented.

#### REFERENCES:

1. Kramer S, Akhtar S (eds). *The Trauma of Transgression: Psychotherapy of Incest Victims*. New York: Jason Aronson, Inc., 1991.
2. Kluft RP, Bloom S, Kinzie J. *Treating The Traumatized Patient and Victims of Violence*, in Bell, CC (ed). *Psychiatric Aspects of Violence: Issues in Prevention and Treatment*. *New Directions in Mental Health Services*. 86 (Summer), 2000.

## DEBATE

### 1. DOES CATIE REALLY INFORM THE PRACTICE OF PSYCHIATRY?

*Moderator:* Richard E. D'Alli, M.D.

*Affirmative:* Herbert Y. Meltzer, M.D., Robert R. Conley, M.D.

*Negative:* William T. Carpenter, Jr., M.D., Joseph P. McEvoy, M.D.

#### EDUCATIONAL OBJECTIVES:

1. The participants will understand the results of the CATIE trial
2. The participants will appreciate the implications for evidence based treatment of schizophrenia and other psychotic disorders

#### ABSTRACT:

The recent publication in the New England Journal of Medicine of the Phase I results of the NIHM Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) has provoked a debate among clinicians regarding its practical implications for the treatment of schizophrenia. The apparent equivalence in efficacy of the first generation antipsychotic perphenazine to three of the second generation antipsychotics immediately begs questions unrelated to pharmacology, such as cost. Similarly, other questions about side effect trade-offs continue to be debated. In this Debate two teams of expert schizophrenia researchers will debate the practical lessons to be drawn from this stage in the CATIE results.

#### REFERENCES:

1. Lieberman, JA, et al., "Effectiveness of Antipsychotic Drugs in.
2. Anonymous, "NIMH Perspective on Antipsychotic Reimbursement: Using.

### 2. MEDICATIONS IN PREGNANCY AND LACTATION: WHAT HAVE WE LEARNED?

*Moderator:* Linda L.M. Worley, M.D.

*Presenters:* Zachary N. Stowe, M.D., Donna E. Stewart, M.D., Jay A. Gingrich, M.D., Shari Lusskin, M.D.

#### SUMMARY:

The recent decisions by the FDA and Health Canada to include black box warnings on serotonergic antidepressants regarding the increased risk of transient neonatal withdrawal symptoms and birth defects has provoked a controversy in the media and confusion, if not anxiety, among primary care physicians and consumers alike. But what do the data really say? An expert panel will discuss the risks and benefits of treating women with psychiatric disorders responsive to antidepressants during pregnancy and lactation.

#### REFERENCES:

1. Cohen L, Altshuler, LL, Harlow, BL, Nonance R, Newport, DJ, Viguera, AC, Suri, R, Burt, VK, Hendrick, V, Reminick, AM, Loughhead, A, Vitonis, AF, Stowe, ZN: Relapse of Major Depression During Pregnancy in Women Who Maintain or Discontinue Antidepressant Treatment. JAMA 2006; 295(5):499-507
2. Levinson-Castiel R, Merlob, P., Linder, N., Sirota, L., Klinger, G.: Neonatal Abstinence Syndrome After Exposure to Selective Serotonin Reuptake Inhibitors in Term Infants. Arch Pediatr Adolesc Med 2006; 160:173-176

## FOCUS LIVE

### 1. PERSONALITY DISORDERS

Glen O. Gabbard, M.D., *Baylor College of Medicine, 6655 Travis, Suite 500, Houston, TX 77030*, Deborah J. Hales, M.D., Mark H. Rapaport, M.D.

#### EDUCATIONAL OBJECTIVES:

As a result of participation in this interactive workshop using Audience Response System technology, attendees will review aspects of current clinical knowledge on the topic of Personality Disorders. Participants will answer board-type questions and engage in a self-assessment activity designed to help them identify areas where they might benefit from more study.

#### SUMMARY:

In FOCUS Live! sessions, expert clinicians, who served as authors and guest editors of Focus, will lead lively multiple choice question-based discussions. This session focuses on information that is important to practicing general psychiatrists, regarding most up-to-date knowledge of psychotherapy treatment, techniques and outcomes. Participants will test their knowledge with an interactive audience response system, which instantly presents the audience responses as a histogram on the screen, allowing private comparison to other clinicians in the audience.

#### REFERENCES:

1. Gabbard GO. Psychodynamic approaches to personality disorders. FOCUS: Personality Disorders: Summer 2005 Vol III No. 3 p363-367
2. Oldham JM. Personality disorders. FOCUS: Personality Disorders: Summer 2005 Vol III No. 3 p372-382

### 2. EATING DISORDERS AND SEXUAL DISORDERS

Stephen B. Levine, M.D., *23250 Chagnn Blvd., #350 Beachwood, OH 44122*, Joel Yager, M.D., *University of New Mexico, School of Medicine, Department of Psychiatry, 1 University of New Mexico, MSC09, Albuquerque, NM 87131-0001*, Deborah J. Hales, M.D.,

#### EDUCATIONAL OBJECTIVES:

As a result of participation in this interactive workshop using Audience Response Technology, participants will have the opportunity to review aspects of current clinical knowledge and increase their understanding of current diagnosis and treatment of sexual disorders and of eating disorders.

Participants will answer board-type questions and engage in a self-assessment activity designed to help them identify areas where they might benefit from more study.

#### SUMMARY:

For most people, eating, and sex are enjoyable activities of human existence. However, for many these functions may present problems

from time to time, taking away from the overall quality of life. For some, one or more of these activities may even be the source of despair.

In FOCUS Live! expert clinicians, who served as guest editors and authors of *Focus*, will lead lively multiple choice question-based discussions. Participants will test their knowledge with an interactive audience response system, which instantly presents the audience responses as a histogram on the screen, allowing private comparison to other clinicians in the audience. Questions will cover existing knowledge on a clinical topic important to practicing general psychiatrists, including diagnosis, treatment, and new developments. In this FOCUS LIVE session, multiple choice questions will be presented by Joel Yager concerning the treatment of anorexia nervosa, bulimia nervosa, binge eating disorder and related problems and Stephen B. Levine will cover topics such as sexual history-taking; the interplay of biology, psychology, interpersonal relationships, and concepts of normality and morality (culture) in generating sexual problems; and how psychiatrists may intervene in the treatment of sexual dysfunction problems of the SSRI and SSNI-induced sexual dysfunctions.

#### REFERENCES:

1. Levine SB, A Reintroduction to Clinical Sexuality. FOCUS: Sleep, Sex, and Eating Disorders: Fall 2005 Vol. III No. 3p. 526-527.
2. Yager J, Delvin MJ, Halmi KA et al. Eating Disorders: FOCUS: Sleep, Sex and Eating Disorders: Fall 2005 Vol III No. 3 p. 503-510.

### 3. PSYCHOTHERAPY

Deborah J. Hales, Jerald Kay, M.D.

#### EDUCATIONAL OBJECTIVES:

As a result of participation in this interactive workshop using Audience Response System technology, attendees will review aspects of psychotherapeutic treatments, techniques and outcomes covered in the Spring 2006 issue of FOCUS: Psychotherapy. Participants will answer board-type questions and engage in a self-assessment activity designed to help them identify areas where they might benefit from more study.

#### SUMMARY:

In FOCUS Live! sessions, expert clinicians, who served as authors and guest editors of Focus, will lead lively multiple choice question-based discussions. This session focuses on information that is important to practicing general psychiatrists, regarding most up-to-date knowledge of psychotherapy treatment, techniques and outcomes. Participants will test their knowledge with an interactive audience response system, which instantly presents the audience responses as a histogram on the screen, allowing private comparison to other clinicians in the audience.

#### REFERENCES:

1. FOCUS Spring 2006 Volume IV Number 2 Psychotherapy.
2. Kay J. The Essentials of Psychodynamic Psychotherapy. FOCUS: Psychotherapy 2006:4 (in press).

## FORUMS

### HARRY POTTER AND THE HALF-BLOOD PRINCE: HARRY GROWS UP

*Chair:* JoAnne Isbey

*Presenters:* Daniel G. Dickstein, M.D., Leah Dickstein, M.D., Steven P. Dickstein, M.D., Cheryl Munday, Ph.D., Eva Szigethy, M.D., Theresa Yuschok, M.D., Dorothy Bates

#### EDUCATIONAL OBJECTIVES:

1. Participants will be able to recognize contemporary archetypes in young adult literature. 2. The audience will be invited to explore the clinical relevance of gender difference in contemporary narratives and how these gender differences resonate and represent the inner/outer reality of today's young people. 3. The participants will recognize the healing power of stories to promote the individuation process and character development of children.

#### SUMMARY:

The interactive, intergenerational forum will explore Harry's mythic and symbolic story world as a clinical narrative in a Post-9/11 contest of fear, panic, love, and faith. Harry navigates the violent, chaotic trajectory of his coming of age, enduring cycles of betrayal, abandonment, death, and grief, as he suffers the existential confusion that marks adolescence' idealism tempered by pain and despair. Fated to affect the destiny of the universe, Harry is marked from infancy to battle the dark Lord Voldemort. Professor JoAnne Isbey will present an overview of the complex forces that challenge Harry's courage and integrity. Theresa Yuschok, M.D. will address transitions of betrayal, abandonment, loss, and bereavement as Harry's maturing process takes on increments of insight. Leah Dickstein, M.D. will analyze cultural gender material that informs Harry's identity formation. Eva Szigethy, M.D. will identify and assess the protective and risk factors that mediate Harry's path. Daniel Dickstein, M.D. will identify the positive and negative role model influences that contribute to Harry's ultimate decision that he must lead his own life. Steven Dickstein, M.D. will describe Harry's matter-of-fact, realistic ability to learn from his experience, his altruism that reaches beyond himself, his friendships, his commitment to the future, and his determination to face his future head on. As we explore Harry's narrative, we will search out analogues that metaphorically resonate with the conditions of this world's children in 2006.

### RESEARCH PLANNING FOR DSM-V

*Chair:* Darrel A. Regier, M.D.

*Presenters:* Norman Sartorius, M.D., Carol A. Tamminga, M.D., Trey Sunderland, Dennis S. Charney, M.D., Wilson M. Compton, M.D.

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this session, the participant will be able to demonstrate knowledge of the multiple activities being undertaken to expand the research base for DSM-V.

#### SUMMARY:

APA published the fourth edition of the diagnostic manual in 1994, and a text revision in 2000. With a target publication date of 2011 for DSM-V, planning for DSM-V was initiated 12 years in advance, with the aim of stimulating research that would address identified opportunities as well as gaps in nosologic research. In 1999, APA and NIMH jointly sponsored a conference that led to preparation of a series of white papers, published in A Research Agenda for DSM-V, to be followed in 2006 by a second volume focused on special populations. APA also has established a publicly accessible website ([www.DSM5.org](http://www.DSM5.org)) to document input from all

DSM user groups. This forum will highlight a third planning component, an ongoing series of international research planning conferences being convened by APA/APIRE in collaboration with the World Health Organization and the National Institutes of Health under a cooperative grant funded by NIH. Presentation topics include a review of research recommendations generated through conferences that have examined substance use disorders; stress-induced and fear circuitry disorders such as PTSD, panic, and phobias; diagnostic criteria in Alzheimer's disease and dementias; and constructs of psychosis spanning several established diagnoses. A fifth presentation will anticipate the global public health implications of the evolving research base in diagnosis-related areas, a topic that will be the focus in 2007 of the concluding conference in the series.

#### REFERENCES:

1. Kupfer DJ, First MB, Regier DA (editors): A Research Agenda for DSM-V, Washington, DC, American Psychiatric Association, 2002.
2. Saunders JB, Schuckit MA, Sirovatka PJ, Regier DA (eds): Diagnostic Issues in Substance Use Disorders: Refining the Research Agenda for DSM-V. Washington, DC, American Psychiatric Press, 2006 in press.

### MOZART AT 250: THE MIND AND MUSIC OF A GENIUS

*Chair:* Richard Kogan, M.D., 15 East 77th Street, New York, NY, 10021

#### EDUCATIONAL OBJECTIVES:

1) To appreciate the connection between Mozart's psyche and his creative output; 2) to understand some fundamental concepts about creativity and genius.

#### SUMMARY:

Wolfgang Amadeus Mozart is universally acknowledged as the greatest genius in the history of western classical music. He composed with almost supernatural ease and was astonishingly productive, completing over 600 works before his untimely death at age 35.

Psychiatrist and award-winning concert pianist Dr. Richard Kogan will examine Mozart's complex personality and will attempt to explore some of the apparent contradictions in his creative life, for instance: (1) how a man with such limited insight into his fellow human beings could produce such memorable and well-defined musical portraits in operas such as Don Giovanni and The Marriage of Figaro. (2) how a man so prone to using profane language could compose music that was so elegant.

Dr. Kogan will sort through the mysterious circumstances surrounding Mozart's death and will explore evidence that Mozart may have suffered from Tourette's Syndrome, Asperger's Disorder or bipolar disorder. The discussion will be illuminated by piano performances of Mozart's music.

#### REFERENCES:

1. Solomon, Maynard Mozart.
2. Neumayr, Anton Music and Medicine.

### WOMEN AND ALCOHOL USE DISORDERS *Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism*

*Chair:* Shelly F. Greenfield MD MPH, M.D.

*Presenters:* Grace Chang, M.D., Shelly F. Greenfield MD, MPH, M.D., Carrie L. Randall, Ph.D., Susan M. Gordon, Ph.D.



**EDUCATIONAL OBJECTIVES:**

Participants will learn about four specific areas relevant to women's health and alcohol including the telescoping course of alcohol use disorders, alcohol and pregnancy, co-occurring depression and alcohol use disorders, and co-occurring eating and alcohol use disorders.

**SUMMARY:**

This forum will present information on four areas pertinent to women and alcohol use disorders: (1) *Telescoping of alcoholism and alcohol-related problems in women*: Research has demonstrated a differential time course (telescoping) of the development of alcohol-related problems and alcohol-related medical consequences in men and women. The implications of this time course in the care of women with alcohol dependence will be presented. (2) *Alcohol and Pregnancy: The Partner's Role*: Brief interventions for alcohol use in pregnancy have been demonstrated to be effective in reducing prenatal consumption. The role of a partner participating in the brief intervention will be examined and discussed. (3) *Co-occurring depression and alcohol use disorders*: Depression and alcohol use disorders commonly co-occur. Because of the greater prevalence of depressive disorders among women, co-occurring depressive disorder may be especially significant for alcohol treatment outcomes in women. The clinical implications will be presented. (4) *Co-occurring eating disorders and alcohol use disorders*: The prevalence and types of eating disorders in alcohol abusing populations will be presented. Differences between alcohol use disorders and eating disorders and issues in diagnosing and treating eating disorders in individuals with alcohol use disorder will be discussed. The session will end with participant discussion, questions, and answers.

**REFERENCES:**

1. Rowlings JK: Harry Potter and The Half Blood Prince: Scholastic, 2005.

**THE THEORY AND PRACTICE OF APOLOGY**

*Chair*: Aaron Lazare, M.D.

*Presenters*: Jeffrey L. Geller, David Spiegel, M.D.

**EDUCATIONAL OBJECTIVES:**

The objectives of this presentation are to present an analysis of the apology process, its structure and function; how apologies heal or fail to heal; the motives and resistance to apologize; and the relevance of apology to the practice of psychiatry.

**SUMMARY:**

An apology is one of the most profound interactions between individuals, groups and nations. Apologies succeed by meeting one or more of the following needs of the offended party: The restoration of dignity or power, validation of the offense, clarification of fault, assurance of shared values, assurance of safety in the relationship, including a promise for the future, suffering on the part of the offender, reparations, and meaningful dialogues which facilitate grief and other processes. The structure of the apology includes acknowledgement of the offense, explanations, expressions of remorse/shame/humility, and reparations. Motives to apologize include the restoration of dignity and self esteem on the part of the offender or attempts to influence the offended party. Resistances to apologizing include feelings of embarrassment or shame over being weak and vulnerable, together with a fear of the reaction of the offended party. Understanding these reactions in our patients and ourselves can be useful in individual and couple treatment, as well as in consultative work.

**REFERENCES:**

1. Lazare A: On Apology. New York: Oxford University Press, 2004.
2. Tannen, D: I'm Sorry, I Won't Apologize. The New York Times Magazine, July 21, 1996.

**WHO PRESCRIBES WHAT TO WHOM AND WHY ? UNDERSTANDING AND ASSESSING THE COMPLEX ISSUE OF ADDICTION TO PRESCRIPTION MEDICATIONS**

*Sponsored By*: National Institute on Drug Abuse

*Chair*: Nora D. Volkow, M.D.

*Presenters*: Eric C. Strain, M.D., Joseph Califano, M.D., Charles P. O'Brien, M.D., Nathaniel P. Katz, M.D.

**EDUCATIONAL OBJECTIVES:**

- i) Learn about recent trends in abuse of prescription medications.
- ii) Explore the possibility that some portion of these problematic trends may be medically induced.
- iii) Critically assess the addiction risk associated with current diagnostic and prescription practices.
- iv) Explore the possible roles that the APA could play to address this issue.

**SUMMARY:**

Many highly effective medications can also be highly addictive drugs. An estimated 15 million people aged 12 and older used prescription drugs for non-medical reasons in 2003, some of which, - opioids, central nervous system (CNS) depressants, and stimulants - when abused, can alter the brain's activity and possibly lead to addiction. Remarkable progress has been made in the past couple of decades toward developing medications to treat a variety of mental disorders and other conditions, including pain. However, while there is agreement on the importance of preserving and expanding such gains, recent trends in abuse of prescribed medications raise concerns about the possibility that some portion of these problems may be medically induced and suggest that there is a need to perform a critical evaluation of current diagnostic and prescription practices by various medical providers.

To address this problem and possible roles the APA could play in its solution, NIDA proposes to organize a forum: "Who prescribes What to Whom and Why ?" for this year's annual meeting.

**REFERENCES:**

1. Zaczyn J., Bigelow G, Compton P, Foley K, Iguchi M, Sannerud C. 2003. College on Problems of Drug Dependence taskforce on prescription Opioid non-medical use and abuse: position statement. *Drug and Alcohol Dependence* 69, 215-232.
2. Compton WM, Volkow ND. 2006. Major Increases in Opioid Analgesic Abuse in the United States: Concerns and Strategies. *Drug and Alcohol Dependence*. 81(2):103-117.

**IMPROVING THE QUALITY OF HEALTH CARE FOR MENTAL AND SUBSTANCE USE CONDITIONS**

*Chair*: Mary Jane England, M.D.

*Presenters*: Ann E.K. Page, Cynthia Wainscott, B.A., Harold Alan Pincus, M.D., Gary Lloyd Gottlieb, M.D., Benjamin G. Druss, M.D.

**EDUCATIONAL OBJECTIVES:**

- 1) Presentation of content of IOM "Crossing the Quality Chasm" reports on Improving the Quality of Health Care for Mental and Substance Use Conditions; 2) Informing professionals of the specific

IOM recommendations for improving the quality of care for mental and substance use conditions; 3) Presentation of scientific evidence supporting the IOM recommendations.

#### SUMMARY:

High-quality health care for people with mental health or drug use problems requires a comprehensive strategy integrated with the nation's overall health system and better public health in general. The new IOM report -- from the Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders -- is entitled, *Improving the Quality of Health Care for Mental and Substance-Use Conditions*. (Washington, D. C. The National Academies Press, 2005) and aims precisely at such a comprehensive strategy.

This forum will present the content of the new report and its recommendations to fellow professionals and provide the scientific evidence for these recommendations. American will not have a high-quality health system if equal attention is not given to mental health issues and substance addictions. Mental health is inextricably linked with health and well-being in general, but care and treatment for mental health problems or for inappropriate use of substances are often separated from other forms of health care. The new IOM report has developed a detailed action plan to achieve a more integral system of health care management and delivery of services, but strategies for achieving such a comprehensive vision must be implemented.

#### REFERENCES:

1. Institute of Medicine, Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders. *Improving the Quality of Health Care for Mental and Substance-Use Conditions*. Washington, D.C. The National Academies Press, 2005.
2. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C. The National Academies Press, 2001.

## HOT TOPICS IN PSYCHIATRIC DRUG SAFETY

*Chair:* P. Murali Doraiswamy, M.D.

*Presenters:* Rima F. Kaddurah-Daouk, Ph.D., P. Murali Doraiswamy, M.D., Ana Szarfman, M.D., David Shaffer, M.D., Arif Khan

#### EDUCATIONAL OBJECTIVES:

- (1) To discuss new tools for detecting psychotropic safety issues
- (2) To present mortality rates in psychopharmacologic clinical trials
- (3) Illustrate how Lipidomics can simultaneously map atypical antipsychotic adverse effects on lipid pathways
- (4) FDA black box warning on suicide risk and antidepressants in children: a critical appraisal of evidence, adequacy and impact
- (5) Does antagonism of dopamine D2 receptor lead to tumorigenesis?

#### SUMMARY:

This session will review and highlight current drug safety issues in psychopharmacology. There will be presentations on analyses of mortality data in psychotropic registration trials, risk benefit issues pertinent to use of antidepressants in children, use of data mining for detecting safety signals in postmarketing/clinical trial databases, use of lipidomics to map atypical antipsychotic effects on multiple lipid pathways, and emerging implications of dopamine blockade on adenoma cell proliferation. These new data will be discussed in relation to their implications for safe and effective practice of psychopharmacology.

#### REFERENCES:

1. Szarfman A, Tonning J, Doraiswamy PM. Pharmacovigilance in the 21st century. New systematic tools for an old problem. *Pharmacotherapy* 2004, 24, 1099-1105.

2. Federowicz et al. Metabolic effects of atypical antipsychotics in children. A literature review. *J Psychopharmacol* 2005;19:533-540.

## WORLDWIDE INTERPERSONAL AND GROUP TERRORISM TOWARD WOMEN

*Chair:* Leah J. Dickstein, M.D.

*Presenters:* Esther P. Roberts, M.D., Marta B. Rondon, M.D., Geetha Jayaram, M.D., Gail E. Robinson, M.D., Gloria N. Okorsche, M.D.

#### EDUCATIONAL OBJECTIVES:

Attendees will learn and understand what the broader term terrorism rather than abuse means as it impacts women's lives worldwide.

#### SUMMARY:

**Background:** Since the 70s, 78,000 female fetuses were destroyed in India between 1978 and 1982 using amniocentesis for gender detection. Eighty-four percent of gynaecologists interviewed in Bombay in one study used amniocentesis for sex determination. "Sex detection" clinics use amniocentesis, chorionic-villus-sampling, and ultrasound to curtail the birth of female children. India is the only country where the female: male ratio has declined; female infant mortality is higher. Twenty-two percent of maternal mortality is due to abortions. There is an alarming rise in suicides among women aged 15-29 years of age.

**Method:** We reviewed the literature on Female Feticide over the last 10 years. We also examined cultural norms, status of women, the complex interaction between advanced technology and societal expectations in India. Additionally, we reviewed legal changes, actions taken by the American and Indian Medical Associations to address practice guidelines and ethical considerations. Finally, we assessed the need for psychiatric and genetic counseling.

**Results:** The Indian Medical Association issued a statement of widespread concern about the lack of practitioner ethics, negative consequences to women and their families, and adverse demographic outcomes. The Legislative Branch of the Indian Government in 1994 introduced regulations on diagnostic procedures. This prompted the World Medical Association in April 2000 to denounce the practice of Female Feticide and the use of selective sex-determination for any other purposes than for the control of sex linked diseases. The International Medical Graduate Council of the American Medical Association assisted in developing a similar policy statement in 2001. Risk factors must be identified.

Psychiatric care is urgently needed. Discussion will focus on areas of family planning, gender and societal contributions by women, post-partum depression and treatment.

Ways to combat the silent aggression against women will be reviewed.

## THE FUTURE OF ALCOHOL RESEARCH: NIAAA RESIDENT TRAVEL AWARD WINNERS WITH DISCUSSION BY A PANEL OF SENIOR RESEARCHERS

*Sponsored by:* National Institute on Alcohol Abuse and Alcoholism

*Chair:* Mark Willenbring

*Presenters:* Andrew C.H. Chen, M.D., Ph.D., Tara Wright, M.D., Ellen J. Hoffman, M.D.

#### EDUCATIONAL OBJECTIVES:

To allow residents to present papers on alcohol related research.

#### SUMMARY:

This year, the National Institute on Alcohol Abuse and Alcoholism established travel awards for psychiatry residents, based on submitted

papers related to alcohol research. In this forum, the residents will present their winning papers. Discussants will be a panel of alcohol researchers, who will also address future trends in alcohol research.

#### REFERENCES:

1. Murillo, Horacio, Reece, E. Albert, Snyderman, Ralph, Sung, Nancy S. Meeting the Challenges Facing Clinical Research: Solutions Proposed by Leaders of Medical Specialty and Clinical Research Societies *Acad Med* 2006 81: 107-112
2. Sung, N.S., Crowley, W.F., Genel, M. Central challenges facing the national clinical research enterprise (2003) *JAMA*, 289 (10) pp. 1278-1287

## KATRINA: PSYCHIATRIC RESPONSES AND CARE FOR INDIVIDUALS AND COMMUNITIES

*Chair:* Robert J. Ursano, M.D.

*Presenters:* Carol S. North, M.D., Ronald Kessler, James Ray R. Rundell, M.D., Howard J. Osofsky, M.D., Anthony T. Ng, M.D.

#### EDUCATIONAL OBJECTIVES:

(1) Identify the psychiatric and behavioral outcomes of exposure to hurricane Katrina (2) Describe psychiatric care for individuals and the disaster community

#### SUMMARY:

Hurricane Katrina was the largest, most costly disaster the United States has ever faced. Nearly 1000 people died. Hundreds of thousands were displaced, lost homes, jobs and community. Those who evacuated before the storm, those who stayed and those who evacuated after the destruction face enormous losses and stress. As in other disasters, distress, health risk behaviors, psychiatric illness and resiliency were a part of the responses of individuals and families. Community rebuilding and lost connectedness will require unprecedented response and recovery interventions for years to come.

This forum will review both on site psychiatric and medical care throughout the disaster area and systematic data collection to assess individual and community effects and health and community needs. The forum will review Katrina response health care delivery needs, medical clinic primary care responses and preliminary results on prevalence of mental disorders, distress and unmet need for treatment and community interventions.

#### REFERENCES:

1. Ursano, RJ, Fullerton CS, Norwood, AE (Eds), *Terrorism and Disaster: Individual and Community Mental Health Interventions*, Cambridge UK, Cambridge University Press, 2003.
2. Survey of Hurricane Katrina Evacuees, The Washington Post/Kaiser Family Foundation/ Harvard University, Henry J Kaiser Family Foundation Sept 2005.

## ADDRESSING PSYCHIATRIC NEEDS IN ASIA

*Chair:* Pedro Ruiz, M.D.

*Presenters:* Naotaka Shinfuku, M.D., Ph.D., Russell F. D'Souza, M.D., Afzal Javed, Haroon R. Chaudhry, Prof. Dr., Bruce Singh, Ph.D., Rodrigo A. Munoz

#### EDUCATIONAL OBJECTIVES:

At the end of this forum, the participants will be able to: 1) Develop plans of interventions vis-a-vis national disasters. 2) Design networking strategies to maximize resources in regions stricken by natural disasters. 3) Plan preventive strategies with respect to Post-traumatic Stress Disorder, Mood disorders, etc.

#### SUMMARY:

The Asian region is one of the most populated areas of the world; yet, it is an area in which little international attention has been given insofar as mental health services and psychiatric care is concerned. Recently, several major national disasters have stricken this area. Among them, the Tsunami that recently affected several countries in this area, including Sri Lanka, Indonesia, etc.; additionally, the major earthquake that recently affected Bangladesh and Pakistan. The outcome of these two major natural disasters has proven without question that not enough mental health resources were available on site to address the psychiatric and mental health needs of the countries and populations affected by these natural disasters.

From a different point of view, thousands of international medical graduate (IMGs) psychiatrists from Asia are practicing in the United States. Many of them are also members of the American Psychiatric Association (APA). They are unquestionably a major manpower and expertise resource in this regard. In this forum, key issues pertaining to international assistance in times of needs due to major national disasters in this region will be addressed. Among them, available and needed mental health professional manpower, special training needs, role of international networking among psychiatric organizations, international psychiatric leadership enhancement, and relevant research and evaluation efforts. Hopefully, this discussion will lead to strategic development of primary, secondary and tertiary prevention models of intervention for future natural disasters that might occur in this region.

#### REFERENCES:

1. Shalev AY: Acute Stress Reactions in Adults. *Biological Psychiatry*, 51: 532-543, 2002.
2. Bland SH, O'Leary ES, Farinero E, Jossa F, Krogh V, Violanti JM, Trevisan M: Social Network Disturbances and Psychological Distress Following Earthquake Evacuation. *Journal of Nervous and Mental Diseases*, 185: 188-194, 1997.

## ENVIRONMENTAL PSYCHIATRY: FROM SICK BUILDINGS TO THE GULF WAR

*Chair:* Claudia S. Miller, M.D., *University of Texas Health Science Center, Department of Family and Community Medicine, 7703 Floyd Curl Drive, MCS 222, San Antonio, TX 78229*

*Presenter:* Claudia S. Miller, M.D.

#### EDUCATIONAL OBJECTIVES:

Following this session, participants will be able to: 1. List three key environmental exposure history questions to ask of their patients. 2. Describe the role of chemical, food, medication, alcohol, and caffeine intolerances in producing symptoms in exposed individuals. 3. List the two steps involved in toxicant-induced loss of tolerance (TILT), and state how TILT differs from allergy and classical toxicology and how it resembles addiction. 4. Use a validated questionnaire to help determine whether a patient is chemically intolerant. 5. List several genetic polymorphisms involved in detoxification that have been linked to chemical intolerance.

#### SUMMARY:

Although reliable retrospective data is limited, there is evidence that a broad array of chronic health conditions- ranging from asthma and autoimmune disorders to neuropsychiatric conditions such as autism, depression, and attention deficit/hyperactivity disorder- may have risen in prevalence in recent decades. Notably, these increases mirror increasing environmental exposures to synthetic organic compounds at work, school and home, in enclosed vehicles, and from consumer products. Common contaminants include fragrances, combustion products, solvents (paints, adhesives, cleaners), pesticides, and plasticizers. Genetic differences in the capacity to detoxify specific environmental contaminants determine individual susceptibility to exposures like these. For example, the CYP2D6 enzyme, which

is involved in the metabolism of centrally acting drugs such as tricyclic antidepressants, SSRIs, MAO inhibitors, amphetamines, and codeine, also activates and inactivates environmental toxicants. Likewise, differences in PON1 enzyme status determine susceptibility to organophosphate pesticides. Following an exposure event, such as a sick building, the Gulf War, or pesticide application, a subset of individuals report (1) losing tolerance for everyday chemicals, foods, drugs, alcohol and caffeine, and (2) developing multi-system, often disabling, symptoms that are triggered by these common exposures. Neuropsychiatric symptoms, including anxiety, depression, and memory and concentration difficulties, predominate, often accompanied by respiratory, musculoskeletal, gastrointestinal and other symptoms that characteristically wax and wane in intensity. Researchers from more than a dozen countries have described this two-stage phenomenon, referred to as "toxicant-induced loss of tolerance" or TILT, in groups of exposed individuals. This mechanism appears to be a common thread that underlies and unifies a variety of neuropsychiatric and somatic conditions.

#### REFERENCES:

1. McKeown-Eyssen G, Baines C, Cole DE, Riley N, Tyndale RF, Marshall L, Jazmaji V: Case-control study of genotypes in multiple chemical sensitivity: CYP2D6, NAT1, NAT2, PON1, PON2 and MTHFR. *Int J Epidemiol* 33:971-8, 2004.
2. Miller CS: Toxicant-induced loss of tolerance: mechanisms of action of addictive stimuli. *Addiction* 96(1):115-139, 2000.

### **MANY FACES OF TRAUMA: A MULTISYSTEMIC VIEW OF THE AFTERMATH OF KATRINA**

*Chair:* Howard J. Osofsky, M.D.

*Presenters:* Joy D. Osofsky, M.D., Patricia M. Morse, Ph.D., Robert J. Ursano, M.D., Howard J. Osofsky, M.D.

#### EDUCATIONAL OBJECTIVES:

1. To learn about the effects of a major devastation on communities, children and families;
2. To learn about how to organize and provide psychological first aid following a disaster;
3. Guiding the response to displaced children and families through NCTSN evidence based screening;
4. To understand the long term mental health sequelae of disasters

#### SUMMARY:

Hurricane Katrina was the worst natural disaster to impact on the United States. Approximately 1400 people lost lives and over 3000 people are still missing. Families were displaced and many suffered extensive property and personal losses. All children and families in the New Orleans area were impacted with loss of schools, housing, and community. The panel will include presentations focusing on outreach by LSU Health Sciences Center Department of Psychiatry and Louisiana Rural Trauma Services Center and behavioral health data gathered with a screening measure developed by the National Child Traumatic Stress Network, modified by LSUHSC. The New Orleans LSUHSC team will discuss the initial crisis response including Psychological First Aid and ongoing services provided to first responders, children, and families. Data will be presented from schools where displaced children have relocated. Resilience shown by children and families in heavily impacted parishes will be discussed.

#### REFERENCES:

1. Goenjian, A., Walling, D., Steinberg, A, Karayan, I., Najarian, L., & Pynoos, R. (2005). A prospective study of posttraumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. *American Journal of Orthopsychiatry*, 75(1), 1-11.
2. Mollica, R.F., Cardozo, B.L., Osofsky, H.J., Raphael, B., Ager, A., Salama, P. (2005). Mental health in complex emergencies. *Lancet*, 364 (9450), 2058-2067.

## LECTURES

SUNDAY, MAY 21, 2006

### LECTURE 1 THE CHALLENGE OF EMPLOYMENT-RELATED PSYCHIATRIC EVALUATIONS AAPL/APA's Manfred S. Guttmacher Award Lecture

Liza H. Gold, M.D. *Georgetown University Medical Center, Department of Psychiatry, 2501 N. Glebe Road, Suite 204, Arlington, VA, 22102*

#### SUMMARY:

Concerns about manipulation and abuse in employment conflicts are epitomized by claims of psychiatric work impairments and work related psychiatric injury. Employment related psychiatric evaluations are the most common types of nonmedical evaluations requested of clinicians and some of the most complex forensic assessments. More often than not, such evaluations take place in the context of personal and employment related conflict and crisis which can result in disability claims, job loss, career change, financial ruin and litigation. However, clinical and forensic psychiatrists alike are often untrained in providing thorough employment related evaluations. Competent, evidence based assessment of employment issues is of value to patients, employers and their employees, and society as a whole. Such assessments can assist those entitled to compensation or accommodation to obtain what is due them as well as protect employers and social agencies from unrealistic expectations or unreasonable legal demands related to disability benefits and employment litigation.

#### REFERENCES:

1. Brodsky CM: Factors influencing work-related disability. In *Psychiatric Disability: Clinical, Legal and Administrative Dimensions*. Edited by Meyerson AT, Fine T. Washington DC, American Psychiatric Press, Inc. 1987a, pp. 49-65.
2. Talmage JB, Melhorn JM, eds: *A Physician's Guide to Return to Work*. Chicago: AMA Press, 2005.

MONDAY, MAY 22, 2006

### LECTURE 2 HEART RATE VARIABILITY AND PSYCHIATRY: BEYOND HEART-MIND LINK International Psychiatrist Lecture Series

Krishnamachari Srinivasan, M.D. *St. John's Medical College, Psychiatry, Sarjapur Road, Bangalore, 560034, India*

#### SUMMARY:

Heart rate variability has received considerable attention in recent times for its utility as a non-invasive marker of autonomic nervous system regulation (Mezzacappa et al, 1994). Alteration in heart rate variability has been posited as a possible mechanism to explain the association between negative emotions such as anger, anxiety, and depression, and adverse cardiovascular events (Gorman & Sloan, 2000). Reduced heart rate variability, particularly vagal regulation to the heart, is an important risk factor for adverse cardiovascular events. Heart period is influenced by brainstem mechanisms in concert with hypothalamic structures thereby providing the basis for the use of heart period as a non-invasive index of limbic activity. This presentation will highlight the utility of heart rate variability in studying various emotional responses to environmental challenges

in both children and adults and the implications thereof for mental health professionals.

#### REFERENCES:

1. Mezzacappa E, Kindlon D, Earls F: The utility of spectral analytic techniques in the study of the autonomic regulation of beat-to-beat variability. *International Journal of Methods in Psychiatry Research* 1994;4:29-44.
2. Gorman JM, Sloan RP. Heart rate variability in depressive and anxiety disorders. *American Heart Journal* 2000; 140:S77-83.

### LECTURE 3 REDISCOVERING OUR PLACE IN THE WORLD Frontiers of Science Lecture Series

David T. Suzuki, Ph.D. *The David Suzuki Foundation, Suite 219 - 2211 West 4th Avenue, Vancouver, BC, V6K 4S2, Canada*

#### SUMMARY:

In the past century, humanity has undergone an explosive change in numbers, science, technology, consumption and economics, that have endowed us with the power to alter the biological, physical and chemical properties of the planet. It is undeniable that the atmosphere and climate are altered; air, water, and soil are fouled with toxic pollutants; oceans are depleted; forests are being cleared; and species are disappearing. Now that most people live in large cities, our relationship with nature is less obvious. Computers and telecommunications fragment information so that we can no longer recognize the interconnectivity of everything in the world. Globalization of the economy renders the entire planet a source of resources and all people a market for products, while local communities and local ecosystems are negatively impacted.

Traditional people refer to the Earth as their "Mother" and tell us we are made of the four sacred elements: Earth, Air, Fire and Water. Today science is verifying this ancient wisdom and defines a different set of priorities that should become our bottomline for the 21st century: a) We are biological beings with an absolute dependence on clean air, water, soil and sunlight for our well being and survival. b) The web of all life on Earth (biodiversity) is responsible for cleansing, replenishing and creating air, water, soil and captured sunlight. c) Diversity at the genetic, species, ecosystem and cultural level is critical for longterm resilience and adaptability. d) We are social animals with an absolute need for love to realize our full human potential; maximal opportunity for love is ensured with strong families, communities, full employment, justice, equality, freedom from terror and war. e) We are spiritual beings who need to know that there are forces that impinge on our lives that lie outside our understanding or control; that nature that gave us birth, will persist after we die; that there are sacred places where humans come with respect and reverence. Human beings are one species among perhaps 10 to 15 million other species on whom we are ultimately dependent for our well-being. Humanity needs to rediscover humility and our place in the world so that we and the rest of life can continue to flourish.

### LECTURE 4 THE SEARCH FOR QUALITY AND EQUITY IN CARE FOR PSYCHIATRIC DISORDERS: A STORY OF OPPORTUNITY, EVIDENCE, AND PARTNERS APA's Research in Psychiatry Award Lecture

Kenneth B. Wells, M.D. *UCLA Health Services Research Center, Department of Psychiatry, Los Angeles, CA, 90024*

#### SUMMARY:

Medicine faces a wide quality chasm for chronic diseases including psychiatric disorders. There are substantial disparities in quality of

care, resulting in a wider chasm for underserved groups. Disease management programs can help bridge that gap generally and for underserved groups, but have not been developed and evaluated for a wide range of psychiatric disorders. Most such programs have not been widely implemented, and infrastructure to support evidence-based psychotherapy is particularly limited. Addressing disparities in care for psychiatric disorders requires new approaches well beyond the traditional clinical scope of psychiatry and boldly advances into community capacity building, partnerships within and across public and private sector settings, and collaboration across provider specialty groups, and with payers and purchasers. Supporting fairness and quality will require changes in incentives, but even more, leadership and vision, with new roles, skills, and motivations for psychiatrists and others who deliver or fund mental health care. Examples are provided from a series of studies on depression, from assessing the chasm to building capacity for community-partnered efforts to improve quality and equity.

#### REFERENCES:

1. Wells KB, et al: Five-year impact of quality improvement for depression: results of a group-level randomized controlled trial. *Arch Gen Psychiatry* 2004; 61:378-386.
2. Wells KB, et al: Building an Academic-Community Partnered Network for Clinical Services Research: The Community Health Improvement Collaborative (CHIC). *Ethnicity Disease*, In Press.

#### LECTURE 5 GENE-ENVIRONMENT INTERACTIONS AND RISK OF MAJOR DEPRESSION: IMPLICATIONS FOR COMMUNITY-BASED PREVENTION STRATEGIES APA's Simon Bolivar Award Lecture

Pedro L. Delgado, M.D. *University of Texas Health Science Center, Department of Psychiatry, 7703 Floyd Curl Drive, Department of Psychiatry, San Antonio, TX, 78229-3900*

#### SUMMARY:

The risk for major depressive disorder is increased by both genetic factors and living through stressful and/or traumatic life events. New research shows that certain genetic differences in the regulation of the serotonin neurotransmitter system are associated with greater likelihood of developing major depression, but only when people lived through stressful life situations. In the absence of serious life stress, the same genetic differences did not contribute to risk of major depression. The basic neuroscience that may underlie the way in which stress predisposes to depression in the face of functional differences in serotonergic function is beginning to be understood. These findings have profound implications for the field and suggest that certain forms of major depression result from trauma in genetically susceptible people - in essence that some forms of depression may be considered a type of a post traumatic stress syndrome. This hypothesis suggests that certain forms of major depressive illness may be preventable or that the course of illness may be favorably modified by aggressive early intervention. In this context, some of the most important steps in treatment may involve increasing resilience among vulnerable and at-risk individuals and early aggressive intervention with strategies aimed at improved adaptation and coping in people living with stressful situations and/or chronic or serious general medical illness.

#### REFERENCES:

1. Caspi A, Sugden K, Moffitt TE, Taylor A, Craig IW, Harrington H, McClay J, Mill J, Martin J, Braithwaite A, Poulton R: Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT Gene. *Science* 2003;301:386-389.
2. Kendler KS, Kuhn JW, Vittum J, Prescott CA, Riley B: The interaction of stressful life events and a serotonin transporter

polymorphism in the prediction of episodes of major depression: A replication. *Arch Gen Psychiatry* 2005;62:259-535.

#### LECTURE 6 EMOTION PROCESSING AND SCHIZOPHRENIA: NEUROPSYCHIATRIC PERSPECTIVES Distinguished Psychiatrist Lecture Series

Raquel E. Gur, M.D., Ph.D. *University of Pennsylvania Medical Center, Psychiatry, 3400 Spruce, 10 Gates/HUP, University of Pennsylvania, Philadelphia, PA, 19104*

#### SUMMARY:

Impaired emotional processes, especially flat affect have long been recognized as central to schizophrenia. Earlier efforts have focused on treatment of positive symptoms and deficits in cognition. With the increased efforts to advance the understanding and treatment of negative symptoms, flat affect has received increased attention. Work conducted at the Penn Schizophrenia Center has examined emotion processing in clinical, neurobehavioral, neuroimaging and genetic studies. The presentation will provide an overview of ongoing studies that examine schizophrenia patients with and without flat affect, and relate symptom severity to performance on cognitive tasks, emotion recognition tasks and to outcome. Neuroimaging data from a series of fMRI studies on emotion processing support the hypothesis that flat affect is associated with greater cerebral dysfunction, especially in the corticolimbic system for emotion processing. Family studies indicate that emotion processing is an endophenotypic measure, impaired in unaffected relatives. These results underscore the need for developing objective measures of flat affect, and initial efforts will be presented to do that through digital photography and deformation based morphometric analysis of faces. Early detection and intervention may be an essential tool to ameliorate the symptoms of flat affect and hopefully their adverse effects on social functioning.

#### REFERENCES:

1. Gur RE, McGrath C, Chan RM, Schroeder L, Turner T, Turetsky BI, Kohler C, Alsop D, Maldjian J, Ragland JD, Gur RC. An fMRI study of facial emotion processing in schizophrenia. *Am J Psychiatry* 2002; 159:1992-1999.
2. Kohler CG, Turner TT, Bilker WB, Brensinger C, Siegel SJ, Kanes, SJ, Gur RE, Gur RC. Facial Emotion Recognition in Schizophrenia: Intensity Effects and Error Pattern. *Am J Psychiatry* 2003; 160:1768-1774.

#### LECTURE 7 THE DISCOURSE ON HUMAN SEXUALITY IN THE TIME OF AIDS Frontiers of Science Lecture Series

Anke A. Ehrhardt, Ph.D. *Columbia University, Department of Psychiatry, 1051 Riverside Drive, Unit 15, New York, NY, 10032*

#### SUMMARY:

Public health policies have a long history of being shaped by political and moral agendas that reflect societal and cultural values. This is particularly true for sexually transmitted diseases such as syphilis in the past that was often seen as a reflection of a breakdown of social values focused on the domestic roles of women, the sanctity of marital sexuality and other aspects of traditional patterns of heterosexual gender roles.

Twenty-five years ago in 1981, the first case of HIV infection was reported in the U.S. Since then, our concepts of sexual behavior and gender have been significantly influenced by sexism, homophobia, and racism often rooted in stigma and fear of the HIV infected. Sexism led us to ignore the imbalance of power between women and men and to focus entirely on the male condom as the primary

method of HIV prevention among heterosexual couples. That focus prevented the development of strategies and methods under women's control. Public health policy informed by homophobia often blamed the HIV infected, thereby, increasing stigma and discrimination and impeding progress on effective prevention and care. Racist attitudes toward young urban women have led to policies in the U.S. targeting abstinence rather than comprehensive sexual education as part of welfare reform. This religiously informed policy with no scientific evidence to support its effectiveness has had far reaching consequences in the U.S. and around the world.

The tension between conservative morality and evidenced based public health policy regarding HIV/AIDS has had far reaching consequences. It often prevents access to life saving information and treatment. It also has invaded and permeated our understanding and general discourse on sexuality and gender in society.

#### REFERENCES:

1. Ehrhardt AA & Exner TM: Prevention of sexual risk behavior for HIV infection with women. *AIDS*, 2000;14:S53.
2. Ehrhardt AA, Dworkin SL & White-Gomez ML: Blueprint for action: Progress in the global fight against HIV/AIDS. Invited lecture, Institute of Journalism and Communication, Hanoi, Vietnam, May 12, 2004. (Report available upon request).

### LECTURE 8 CULTURE, SPIRITUALITY AND PSYCHIATRY: A PSYCHO-HISTORICAL STUDY OF KING SAUL APA's Kun-Po Soo Award Lecture

Albert C. Gaw, M.D. *University of California, San Francisco, Psychiatry, 88 King Street, 401, San Francisco, CA, 94107*

#### SUMMARY:

In recent years, there is a greater awareness and emphasis on the part of the public, the medical profession and psychiatry of the need to address socio-cultural and spiritual issues in medical/psychiatric care. But what are culture and spirituality? How could these inform psychiatry and psychiatric practices?

King Saul's life as recorded in the Old Testament is illustrative. Saul was the first King of Israel. He was thought to have suffered from a mood disorder, most likely bipolar in nature. But his rise and fall could not be simplistically attributed to any biological, personality, socio-cultural or religious factor alone.

In this lecture, I will begin by briefly summarizing concepts of culture. Then, I will define religion and spirituality, particularly from the perspective of the writings of William James. This will follow with a psycho-historical analysis of the personality of King Saul, delineating the core psychological theme of low self-esteem that motivated his behavior. The lecture will conclude by drawing both psychological and spiritual meanings in Saul's life to buttress the thesis that the interplay of Saul's personality and the socio-cultural, political and spiritual factors of his time led to his successes and downfall and thus, changed Israeli history.

#### REFERENCES:

1. James W: *The Varieties of Religious Experience*. Cambridge, Massachusetts, Harvard University Press, 1985.
2. Littman SK: King Saul: persecutor or persecuted? *Canadian Journal of Psychiatry* 1981; 464-467.

### LECTURE 9 NEW ADVANCES IN COGNITIVE THERAPY APA's Adolf Meyer Award Lecture

Aaron T. Beck, M.D. *University of Pennsylvania, Department of Psychiatry, University of Pennsylvania, Department of Psychiatry, Philadelphia, PA, 19204-2648*

#### SUMMARY:

The basic framework of the cognitive theory of psychopathology and cognitive therapy of specific psychiatric disorders was developed more than forty years ago. The lecture will trace the continuing progress and development of cognitive therapy and its empirical testing. Cognitive therapy, often labeled as the more generic term "cognitive behavior therapy," has been shown to be effective in reducing symptoms and relapse rates with or without medication across the broad spectrum of psychiatric disorders. It has also been found helpful in medical disorders. Suggestions for the dissemination of cognitive therapy will be discussed.

#### REFERENCES:

1. Butler, A. C., Chapman, J. E., Forman, E. M., & Beck, A. T. (2006). The empirical status of cognitive-behavioral therapy: A review of meta-analyses. *Clinical Psychology Review*, 26, 17-31.
2. Beck, A. T. (2005). The current state of cognitive therapy: A 40-year retrospective. *Archives of General Psychiatry*, 62, 953-959.

### Lecture 10 William C. Menninger Memorial Lecture Connecting the Dots: The Interacting Problems of Poverty

David K. Shipler

#### SUMMARY:

David K. Shipler, a Pulitzer-Prize winning author, reported for 20 years for *The New York Times* from New York, Saigon, Moscow, Jerusalem, and Washington. He has written four books: *Russia: Broken Idols, Solemn Dreams* (a national best-seller); *Arab and Jew: Wounded Spirits in a Promised Land* (winner of the 1987 Pulitzer Prize); *A Country of Strangers: Black and Whites in America*; and *The Working Poor: Invisible in America* (also a best-seller). His lecture will trace the chain reactions among afflictions of the poor, including physical disease, depression, sexual abuse, inferior housing, malnutrition, and repeated failure in school and relationships and jobs. Families he followed for five years illustrate the cascading problems that can lead, for example, from a mother's housing conditions to her child's asthma, to unreimbursed emergency treatment, to a bad credit rating, and to exorbitant interest on a car loan—or, as in another case, from a father's depression, to alcoholism, to his failure to complete a financial aid form, and to his son's entrance into the Air Force instead of college. To address the problems of poverty, Shipler argues, we have to connect the dots.

TUESDAY, MAY 23, 2006

### LECTURE 11 PREVENTION, EARLY INTERVENTION AND ELIMINATION APA's Patient Advocacy Award Lecture

Loretta E. Duvall *NAMI, 67 Strickland Road, Cos Cob, CT, 06807*

#### SUMMARY:

As a nurse, school educator, parent and family member of adults with severe psychiatric illnesses, and recent past president of my local Stamford/Greenwich NAMI affiliate, I will discuss my experience as a common model. These include psychiatric and addiction insurance coverage, all medical treatment services and the urgent need for more education at all levels: of our communities, beginning in schools, for children, parents, teachers, administration, staff, and to government and employers and employees in all worksites.

As citizens, beyond our professions, we must all know the facts of needed parity for mental illness, its actual and lack of availability

to all in need, aftercare services, including appropriate housing, not prisons, and funds for prevention and earlier intervention via education.

As professionals, we know we are not immune from these medical disorders within our personal lives. I chose to cope with our family's experiences by dedicating recent decades to educating and helping others. My presentation will detail experiences and recommendations for individuals, states, nations, applicable to our world's communities.

## LECTURE 12 PERSONALITY DISORDERS: PSYCHIATRY'S STEPCHILDREN COME OF AGE Distinguished Psychiatrist Lecture Series

Joel Paris, M.D. *McGill University, Psychiatry, McGill University, Montreal, PQ, H3A1A1, Canada*

### SUMMARY:

In spite of their high prevalence and morbidity in clinical practice, personality disorders often go unrecognized and undiagnosed. Clinicians often prefer to focus on comorbid Axis I symptoms, and are then surprised that treatment does not have the same efficacy in this population. This lecture will review the state of current research in personality disorders. It will examine clinical features, epidemiology, problems in classification, the relationship of traits to disorders, etiological factors, long-term outcome, as well as treatment research. Evidence supports efficacy for a number of therapeutic methods, particularly in borderline personality disorder.

### REFERENCES:

1. Paris J: *Personality Disorders Over Time*, Washington DC, American Psychiatric Press, 2003.
2. Livesley, WJ: *The Practical Management of Personality Disorder*. New York, Guilford, 2003.

## LECTURE 13 WHAT HAVE WE LEARNED ABOUT ALCOHOLISM FROM ANIMAL MODELS? Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

T-K Li, M.D. *National Institute on Alcohol Abuse and Alcoholism, 5635 Fishers Lane, Room 2001, Bethesda, MD, 20892*

### SUMMARY:

The key questions in alcohol research are: why people drink, why some drink more than others, and why some drink despite negative consequences. Progress in finding the answers has been significantly aided by the development of animal models that allow investigators to study the effects of alcohol in ways not possible with human subjects. For example, the extensive selective breeding of mice and rats has produced genetic lines differing in several alcohol-related traits and allowing investigators to model many of the biological and behavioral effects of alcohol on humans and to identify biochemical, physiological, and anatomic pathways, and chromosomal locations and candidate genes involved in alcohol-related behaviors. Knock-out and transgenic animals are providing novel targets for the development of medications to treat alcohol addiction and prevent relapse. Animal models are also important in research aimed at understanding the development trajectory of alcohol use disorders, particularly alcohol's effect on the structure and chemistry of the developing brain. More refined animal models based on endophenotypes (e.g., personality/temperament) and intermediate alcohol-specific phenotypes will provide greater understanding of the dimensions of severity associated with alcohol-related illnesses including addiction, and

improved methods for preventing, diagnosing, and treating alcohol-related health and behavior problems.

### REFERENCES:

1. Koob G, LeMoal M. *Animal Models of Drug Addiction*. In *Neurobiology of Addiction*. Academic Press, Elsevier, London, UK, 2006, pp. 23-66.
2. Li TK. Pharmacogenetics of responses to alcohol and genes that influence alcohol drinking. *Journal of Studies on Alcohol*. 2000 Jan;61(1):5-12.

## LECTURE 14 HISTORY OF AND CORRECTIVE PROPOSALS FOR DISPARITIES IN MENTAL HEALTH CARE APA's Solomon Carter Fuller Award Lecture

Milton C. Hollar, M.D. *Bronx Psychiatric Center, 1500 Waters Place, New Rochelle, NY, 10801*

### SUMMARY:

Status of the struggle toward parity in mental health care for minorities with special reference to care for the African-American patient.

Much has appeared in the medical media about disparities in mental health practices since the Surgeon General's Report, first in 1999, and supplemented in 2001. An excellent week-long conference was held in Washington, DC, during January, 2006. This lecture will outline the history of the impact of racism on the delivery of health and mental health services and where we are on the road toward equitable mental health care for African-American patients.

### REFERENCES:

1. U.S. Department of Health and Human Services (1999), *Mental Health: A Report of the Surgeon General*, Rockville, MD.
2. U.S. Department of Health and Human Services (2001) *Mental Health: Culture, Race, and Ethnicity: A Report of the Surgeon General* Rockville, MD.

## LECTURE 15 PRIORITIES, INITIATIVES, AND WOMEN'S HEALTH RESEARCH

Vivian Pinn, M.D. *National Institute of Health, Office of Research on Women's Health, Bethesda, MD, 20892*

### SUMMARY:

In her role as director of the Office of Research on Women's Health (ORWH), Vivian Pinn is in a unique position to help ensure that women's health issues and women are well represented in NIH research efforts. In many ways, her current role is the culmination of a lifelong focus on medicine and advocacy for access to good health care for everyone.

Her interest in women's health and women's issues grew out of this experience and from a profound personal loss. When Pinn was 19, her mother became ill. The medical professionals who attended to her did not take her health complaints seriously. The doctor who examined her mother, Pinn recalls, "dismissed my mother's complaints, prescribing special shoes and exercise for her painful back aches." Shortly thereafter, her mother died of bone cancer!

Fueled by her deep loss, Pinn was determined to become a doctor and her family supported her dream. She earned a scholarship to Wellesley College—a women's college with a supportive environment, graduated in 1962 and enrolled in medical school at the University of Virginia, where she received her M.D. in 1967.

Dr. Pinn will discuss priorities and initiatives in women's health research.



## REFERENCES:

1. Pinn VW: Research on Women's Health: Progress and Opportunities; JAMA. Sept. 21, 2005; 294(11)1-4.
2. Exploring the Biological Contributions to Human Health: Does Sex Matter?, Wizemann TM and Pardue ML, eds. Institute of Medicine, National Academy Press, Washington, DC., 2001.

### LECTURE 16 PSYCHIATRIC IMPLICATIONS OF DISPLACEMENT: THE EMOTIONAL COSTS OF LOSING HUMAN HABITAT

#### Distinguished Psychiatrist Lecture Series

Mindy Thompson Fullilove, M.D. *NYS Psychiatric Institute, Department of Psychiatry, NYS Psychiatric Institute, Department of Psychiatry, New York, NY, 10032-2603*

## SUMMARY:

The 2004 tsunami in the Indian Ocean and the 2005 hurricanes in the US Gulf Region revealed the terrible social, emotional, cultural and financial costs that follow destruction of large areas of human habitat. The scale of the losses complicates every aspect of recovery, both because the costs are increased and the local resources diminished by the magnitude of the destruction. Post-disaster, psychiatrists tend to focus on specific illnesses and their treatment. But the loss of large areas of human habitat has important implications for psychiatric well-being that are better understood as the loss of what John Bowlby called "the secondary system of homeostasis." Specifically, absent their customary life-world, people are at a loss to understand and manage daily life. They become vulnerable to despair, may use psychoactive substances to numb their discomfort, and are at high risk for committing self-destructive acts. The essential treatment for these problems is reconnection with neighbors and friends. Psychiatry can contribute to the re-creation of community by the mobilization of a broad array of social organizations, the promotion of healing festivals, and the adaptation of traditional holidays to altered circumstances.

## REFERENCES:

1. Fullilove MT, Root Shock: How tearing up city neighborhoods hurts America and what we can do about it, One World/Ballantine Books, New York, June 2004 (paperback 2005).
2. Fullilove MT, Hernandez-Cordero L, Madoff JS, Fullilove RE. Promoting collective recovery through organizational mobilization: the post-9/11 disaster relief work of NYC RECOVERS, *Journal of Biosocial Science*, 2004;36:479-489.

### LECTURE 17 CHANGING THE LANDSCAPE OF AMERICAN PSYCHIATRY: AN AFRICAN-AMERICAN PERSPECTIVE ON EXPANSIVE PERSONALITY IN WOMEN

#### APA's Alexandra Symonds Award Lecture

Altha J. Stewart, M.D. *Behavioral Health Consulting Firm, 111 South Highland, #180, Memphis, TN, 38111*

## SUMMARY:

In the 23 years since the founding of the AWP to facilitate mentoring and leadership development among women psychiatrists, many changes have occurred in American psychiatry. There is still little in the psychiatric literature, however, regarding specific racial and ethnic subgroups of females, their psychological development or the resultant impact on the profession. This has become increasingly apparent in the area of leadership roles in organized psychiatry, where although women have made great strides as leaders of major psychiatric organizations few studies of the challenges to traditional

standards related to achieving such goals have been conducted. As understanding of the impact of gender on psychological development of leaders improves, the next step will be to explore issues at the interface of gender and race. The psychoanalytic theory of expansive personality offers a basis for beginning such discussion.

Psychoanalytic theory describes expansiveness as part of the normal process of growth, autonomy and self-realization. Symonds theorized that the expression of "expansiveness" included openness to new ideas, flexibility and adapting to change, characteristics generally admired in men and discouraged in women in contemporary society. These characteristics are also found in women whose professional goals include success, achievement, and skills mastery. Unfortunately, little work related to reformulation of these existing psychological theories to provide analysis from an African-centered perspective has been done. Most research involving African-American women has historically been subsumed in the literature under black psychology or feminist psychology. There continues to be a paucity of literature regarding specific and unique psychological development issues facing women of African-descent, but there is general agreement that the pressures of both racism and sexism often conflict in areas of independence, career goals and personal fulfillment.

This presentation will review and analyze the history of the psychology of women within the context of today's society, especially in the still understudied area of women of color. Included will be a review of the theories of Freud, Horney and Symonds and discussion of the social and political realities facing African-American women in organized psychiatry. The role of networks and mentors in achieving success in the field of psychiatric leadership and supporting expansive personality patterns will be explored.

## REFERENCES:

1. Delgado AK, Griffith EEH, Ruiz P: The Black Woman Mental Health Executive: Problems and Perspectives. *Administration in Mental Health*, Summer 1985; volume 12, number 4.
2. Symonds A: The psychodynamics of expansiveness in the success oriented woman. *Am J Psychoanalysis* 1978; 38:195-205.

### LECTURE 18 PHARMACOGENETICS OF ALCOHOL: ARE WE THERE YET?

#### Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism (Frontiers of Science Lecture Series)

Henry R. Kranzler, M.D. *University of Connecticut Health Center, Department of Psychiatry, Farmington, CT, 06030-2103*

## SUMMARY:

Alcohol, a widely consumed psychoactive substance, is neither specific nor potent pharmacologically. Nonetheless, a growing body of evidence shows that variation at specific genetic loci moderates both the subjective effects of alcohol and patterns of alcohol consumption. Research in this area has important implications for understanding the substantial variation among individuals with respect to drinking behavior and alcohol dependence risk. In this lecture, Dr. Kranzler will discuss genetic moderators of the response to alcohol (based on human laboratory studies), as well as the effects of genotype and genotype by environment interactions on drinking behavior (in samples of college students and heavy drinkers). In addition, as pharmacotherapy has come to play a greater role in the management of alcohol use disorders, interest has grown in the identification of potential genetic moderators of medication response. However, this remains an underdeveloped area of investigation. Consequently, Dr. Kranzler will discuss approaches that are beginning to be used to identify genetic moderators of the response to pharmacotherapy among individuals with alcohol use disorders.

## REFERENCES:

1. Gelernter J, Kranzler HR: Genetic variation and drug dependence risk factors. In *Pharmacogenetics of Psychotropic Drugs*, edited by B. Lerer, Cambridge University Press, 2002, pp 372-387, .
2. Pierucci-Lagha A, Covault J, Feinn R, Nellissery M, Hernandez-Avila C, Oncken C, Morrow AL, Kranzler HR. GABRA2 alleles moderate the subjective effects of alcohol, which are attenuated by finasteride. *Neuropsychopharmacol* 2005;30:1193-1203.

### LECTURE 19 AN EVIDENCE-BASED CLINICIAN'S GUIDE TO THE NEW PHARMACOTHERAPIES FOR ALCOHOLISM Collaboration Session with The National Institute on Alcohol Abuse and Alcoholism

Barbara J. Mason, Ph.D. *The Scripps Research Institute, Molecular and Integrative Neurosciences Department, 10550 N. Torrey Pines Road, TPC-5, La Jolla, CA, 92037*

## SUMMARY:

This talk provides an evidence-based review of the relative risks and benefits of acamprosate (Campral®) and naltrexone (ReVia®) in the treatment of alcohol dependence. These are the only medications in recent decades that have been found to be effective for the treatment of alcohol dependence in independent, placebo-controlled studies that have been replicated across a range of countries, although results are not uniformly positive. There is also scientific and clinical interest in examining these drugs in combination, given their high tolerability, moderate effect sizes, different pharmacological profiles, and potentially different effects on drinking outcomes. This talk includes a review of: the key similarities and differences between acamprosate and naltrexone in the treatment of alcohol dependence; the published double-blind, placebo-controlled trials of acamprosate and naltrexone across a uniform range of outcome criteria in order to elucidate the differences and similarities in the behavioral effects of acamprosate and naltrexone; the two published pharmacokinetic (PK) and pharmacodynamic (PD) drug interaction studies of acamprosate and naltrexone; and clinical trial data of acamprosate and naltrexone used alone and in combination relative to placebo. Decision tree logic for prescribing each medication alone and in combination will be presented.

## REFERENCES:

1. Mason BJ: Acamprosate in the treatment of alcohol dependence. *Expert Opin Pharmacother* 2005; 6:2103-2115.
2. Mason BJ: Rationale for combining acamprosate and naltrexone for treating alcohol dependence. *J Stud Alcohol* 2005; Supplement 15:148-156.

WEDNESDAY, MAY 24, 2006

### LECTURE 20 PSYCHIATRY AND AGING: CONTRIBUTIONS OF THE INTERNATIONAL MEDICAL GRADUATES APA's George Tarjan Award Lecture

Dilip V. Jeste, M.D. *University of California, San Diego and VA San Diego Healthcare System, Psychiatry, 3350 La Jolla Village Drive, Bldg. 13, 4th Floor, San Diego, CA, 92161*

## SUMMARY:

Geriatric psychiatry has been a relatively young discipline in the USA. The changing demographics in the world clearly show, however, that the psychiatry of future will increasingly be geriatric psychiatry. The numbers of elderly people with mental illnesses are expected to double during the next 25 years. The International Medi-

cal Graduates (IMGs) continue to make major contributions to geriatric psychiatry in the USA in several different areas. National surveys show that IMG psychiatrists treat a large proportion of older persons, especially those in the public sectors. The IMGs also constitute a sizable proportion of clinical geriatric psychiatry Fellows across the country. As the numbers of ethnic minority elderly in the USA increase, they will often depend on clinicians from the respective cultures for their care. From a research perspective, many IMG scientists have contributed in a major way to research on mood disorders, dementias, psychotic disorders, psychopharmacology, and other biological as well as psychosocial treatments. Moreover, as a result of their broad clinical exposure to geriatric patients, the IMGs will be in an excellent position to develop new practice-based research models. Additionally, there is evidence for differential rates of dementias and some other aging-related disorders in different countries. The IMGs from those countries can, therefore, help develop studies that could shed light on factors underlying variations in disease risk, and thereby suggest possible strategies for treatment and prevention of diseases in late life. Finally, there has been an increasing interest in positive aspects of aging. Successful aging is not an oxymoron, even in people with mental illnesses. The IMGs often come from cultures where aging has a more positive societal connotation than it has in the USA. Thus, they could enrich the US research and healthcare by examining the possible impact of cultural factors on successful aging.

## REFERENCES:

1. Jeste DV, Alexopoulos GS, Bartels SJ, et al.: Consensus statement on the upcoming crisis in geriatric mental health: Research agenda for the next two decades. *Archives of General Psychiatry*, 56:848-853, 1999.
2. Colenda CC, Pincus H, Tanieleian TL, et al.: The geriatric psychiatry workforce in 2002: Analysis from the 2002 National Survey of Psychiatric Practice. *American Journal of Geriatric Psychiatry*, 13:756-65, 2005.

### LECTURE 21 COMBINING NEUROIMAGING AND PHARMACOLOGY TO BETTER TREAT ALCOHOLISM? Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism (International Lecture Series)

Karl F. Mann, M.D. *Heidelberg University, Germany, J5, Mannheim, 68159, Germany*

## SUMMARY:

Alcoholism is among the most prevalent mental health problems. New pharmacotherapies increase treatment outcome significantly. Both naltrexone and acamprosate are now available on the US market. Meta analyses (Mann et al., 2004) clearly demonstrate a benefit of both drugs over placebo. On the other hand the question remains who may be a responder to either naltrexone or acamprosate. The lecture will investigate the role of imaging in answering this question.

Neuroimaging provides an array of different tools which may be helpful in assessing further treatment needs as well as in improving treatment outcome in alcoholics. Application of structural volumetry, molecular imaging, receptor imaging (PET) and f-MRI have all been used in the study of alcoholism.

A rapidly growing body of f-MRI and PET studies consistently found cue-elicited brain activity in the striatum, amygdalae, anterior cingulate and the prefrontal cortex. Recent studies of our group investigated the association of cue-induced brain activity with (1) treatment outcome, (2) dopamine (DA) neurotransmission in the brain reward system and (3) a VNTR polymorphism (*L/S*) of the DA D<sub>4</sub> receptor. An example applies to the availability of  $\mu$ -opioid

receptors in the striatum using 11-C Carfentanil PET. Here the assumption is tested whether high availability corresponds with better naltrexone response.

#### REFERENCE:

1. Mann K: Pharmacotherapy of Alcohol Dependence: A Review of the Clinical Data. *CNS Drugs* 2004; 18:485-504.

### LECTURE 22 PSYCHIATRY AND EDUCATION: WHEN THE TWIN MEET Distinguished Psychiatrist Lecture Series

James P. Comer, M.D. *Yale University, 230 South Frontage Road, New Haven, CT*

#### SUMMARY:

In this presentation I will discuss my journey from a plan to become a general practitioner of medicine in my hometown to psychiatry, public health and prevention, and work in schools. I will discuss how the application of child and adolescent behavior and psychiatric knowledge and skills enabled our team to create a framework that helped to greatly improve the academic and social performance of low-income and marginalized students.

The framework that we created has been validated by the findings of neuroscience and developmental psychology research over the last 20 years. But we have become increasingly aware that this research is hardly known in schools of education, and in the preparation of teachers and administrators.

There is continued resistance to change from the traditional focus on curriculum, instruction and assessment to a focus on creating a school culture that promotes child and adolescent development and the use of psychiatric principles.

Even where schools of education teach child and adolescent development there is a gap between what is taught and application of this knowledge. I will discuss how our School Development Program is a model of how that gap can be closed through staff preparation, practice and policy changes at every level.

Finally, the potential for improving health and well being through adequate support for development will be explored.

#### REFERENCES:

1. Book - Comer JP: *Leave No Child Behind: Preparing Today's Youth for Tomorrow's World*, New Haven, CT, Yale University Press, 2004.
2. Journal Article - Comer, JP: Child and Adolescent Development: The Critical Missing Focus in School Reform. *Phi Delta Kappan* 2005; 86:10, 757-763.

### LECTURE 23 HIGH ON NEUROSTEROIDS: MECHANISMS AND THERAPEUTIC RELEVANCE Frontiers of Science Lecture Series

A. Leslie Morrow, Ph.D. *University of North Carolina School of Medicine, Psychiatry and Pharmacology, 3027 Thurston-Bowles Building, CB 7178, Chapel Hill, NC, 27599-7178*

#### SUMMARY:

The molecular basis of ethanol action clearly involves the production of GABAergic neuroactive steroids, including 3 $\alpha$ -hydroxy-5 $\alpha$ -pregnan-20-one (3 $\alpha$ ,5 $\alpha$ -THP) and 3 $\alpha$ ,21-dihydroxy-5 $\alpha$ -pregnan-20-one (3 $\alpha$ ,5 $\alpha$ -THDOC). Ethanol elevates brain levels of these steroids to enhance GABA-A receptor activity. Neuroactive steroids modulate anticonvulsant effects, sedation, impairment of spatial memory, anxiolytic-like, antidepressant-like and reinforcing properties of ethanol in rodents. Each of these responses is inhibited by pretreatment with the biosynthesis inhibitor finasteride and/or prior adrenalectomy.

Additionally, finasteride blocks the effects of ethanol on medial septal and hippocampal neuron firing rate. These studies suggest that neuroactive steroids are responsible for many of the GABAergic effects of ethanol *in vivo* and the elevation of neuroactive steroids may determine sensitivity to the behavioral effects of ethanol. Low sensitivity to the behavioral effects of ethanol can be a risk factor for the development of alcoholism. Moreover, individuals with the GABRA2 polymorphism linked to alcoholism exhibit blunted sensitivity to subjective effects of ethanol and insensitivity to finasteride. Alcoholic subjects show blunted activation of the HPA axis and this may lead to dysregulation of neurosteroid levels that would normally contribute to alcohol sensitivity. Hence, neurosteroid production in response to physiological challenge may be protective against the development of alcoholism and therapeutic during recovery.

#### REFERENCES:

1. VanDoren, MJ, Matthews, DB, Janis, GC, Grobin, AC, Devaud, LL, Morrow, AL: Neuroactive steroid 3 $\alpha$ -hydroxy-5 $\alpha$ -pregnan-20-one modulates electrophysiological and behavioral actions of ethanol. *Journal of Neuroscience* 2000; 20:1982-1989.
2. Pierucci-Lagha, A, Covault, J, Feinn, R, Nellissery, M, Hernandez-Avila, C, Oncken, C, Morrow AL, Kranzler, HR: GABRA2 alleles moderate the subjective effects of alcohol, which are attenuated by finasteride. *Neuropsychopharmacology* 2005; 30:1193-1203.

### LECTURE 24 A UNIVERSITY PRESIDENT'S PERSPECTIVE ON ALCOHOL RELATED RESEARCH Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism

Edward Malloy, Ph.D. *University of Notre Dame, President Emeritus, U.S. 933, Room 346 DeBartolo Hall, Notre Dame, IN, 46556*

#### SUMMARY:

The presentation will focus on two national studies related to alcohol use and abuse by college and university students. In both cases the disjunction in the perative time frames of members of the research community with specialization in the alcohol area were manifestly different from that of college and university presidents/chancellors. The former group were primarily interested in the scientific validity of existing studies and in garnering financial support for future research. The latter were theoretically supportive of such research but felt intense pressure from multiple constituencies to make concrete decisions about campus-wide policies and procedures in the short term. The presenter will seek to unpack this seeming conflict of perspectives and share what might be learned not only about alcohol related research and its applicability on residential campuses but also other types of scientific research that might seek a comparable level of successful campus-wide application.

#### REFERENCES:

1. NIAAA 'A Call to Action: Changing the Culture of Drinking at U.S. Colleges (NIH, U.S. Dept. of Health and Human Services) April 2002.
2. Rethinking Rites of Passage: Substance Abuse on America's Campuses (Center on Addiction and Substance Abuse at Columbia University) June 1994.

### LECTURE 25 BEYOND DOPAMINE: NEUROADAPTATIONS, NEGATIVE AFFECT, AND CLINICALLY RELEVANT TREATMENT TARGETS IN ALCOHOLISM National Institute on Alcohol Abuse and Alcoholism

Markus Heilig, M.D., Ph.D. *NIAAA, LCTS, NIAAA, Bethesda, MD, 20892*

**SUMMARY:**

Efforts to develop treatments for alcohol use disorders have primarily focused on mechanisms of positive alcohol reinforcement, or “reward”. These actions of alcohol rely, for the most part, on alcohol activating endogenous opioid pathways, leading to a downstream activation of mesolimbic dopamine signalling. This mechanism underlies the successful development of the opioid antagonist naltrexone (NTX) for treatment of alcohol dependence more than a decade ago. However, recent evidence makes it increasingly clear that gender and genetic variation at the mu-opioid receptor (OPRM1) locus determine the relative role of opioid mediated alcohol reward. Recent results in non-human primates support accumulating human data, and show that psychomotor stimulation and ethanol preference are elevated in male carriers of a gain-of-function variant of the OPRM1. Taken together, these data imply that the effect size of medications targeting alcohol reward, including NTX, may be increased by targeting the appropriate patient populations, but also, that other mechanisms may offer attractive treatment targets in other subjects.

A major proposition of this talk is that, in a large number of patients, a major shift occurs over time from initial positively reinforcing, “rewarding” alcohol actions, to alcohol use driven by negative reinforcement, or “relief drinking”. Recent work in rodent models indicates that repeated exposures of the brain to cycles of intoxication and withdrawal, which mimics the clinical addiction process, triggers long term neuroadaptations, leading to elevated voluntary alcohol preference, impaired neurogenesis and increased sensitivity to stress. A recruitment of a hyperglutamatergic state appears to be at the core of this process, but several neurochemical systems that mediate behavioral stress effects and regulate emotionality are also involved. These systems offer a distinct category of candidate treatment targets that are currently being pursued by the NIAAA intramural medications development program. Data will be presented that validate CRH-R1 receptors, NK1 receptors, mGluR2/3 receptors, nociceptin receptors and NPY-Y2 receptors as targets in this category. Strategies will finally be described for translating these preclinical data to early human evaluation, with a focus on imaging-based biomarkers and the use of cue- and stress-induced craving in humans as a category of clinical short-term biomarkers for potential clinical efficacy.

**REFERENCES:**

1. Rimondini R, Arlinde C, Sommer W, Heilig M: Long-lasting increase in voluntary ethanol consumption and transcriptional regulation in the rat brain after intermittent exposure to alcohol. *FASEB J* 2002; 16(1):27-35.

2. Heilig M, Egli M: Models for alcohol dependence: A clinical perspective. *Drug Discovery Today: Disease Models* 2005; 2(4):313-318.

**LECTURE 26**

**MEDICATIONS THAT ACT AT ION CHANNELS AS TREATMENT FOR ALCOHOL DEPENDENCE**  
**Collaborative Session With the National Institute on Alcohol Abuse and Alcoholism (Distinguished Psychiatrist Lecture Series)**

Bankole Johnson, M.D. *University of Virginia, University of Virginia, Charlottesville, VA, 22908*

**SUMMARY:**

Ion channels mediate alcohol’s neuropharmacological effects, including those associated with abuse liability, by modulating cortico-mesolimbic dopamine (CM-DA) function. Medications acting at ion channels might, therefore, demonstrate efficacy for treating alcohol dependence. Notable among ion channels with an effect on drinking is the serotonin-3 receptor. Converging and compelling evidence from preclinical, human laboratory, and clinical studies demonstrates that the serotonin-3 antagonist ondansetron is efficacious for treating alcoholics with a strong biological disease predisposition. Hypothetically, part of the biological predisposition underlying ondansetron’s efficacy might be interaction between chronic drinking and differential serotonin transporter function among various allelic variants. During this lecture, I shall integrate neuroscientific knowledge in this area.

Another medication that modulates CM-DA function by altering ion channel function at GABA-A, AMPA/kainate glutamate, and L-type calcium channels is topiramate. Promising initial data show topiramate to be efficacious for treating both alcohol dependence and co-morbid smoking dependence. Furthermore, ondansetron adds to topiramate’s efficacy. I shall explain how pharmacologically rich medication(s) with multiple ion channel targets can advance development of potent new drugs for treating alcohol dependence.

Finally, I shall present promising preclinical and clinical data on additional ion channel (e.g., other glutamate and adenosine receptors)-altering medications that reduce drinking or promote abstinence.

**REFERENCES:**

1. Johnson BA. Recent advances in the development of treatments for alcohol and cocaine dependence: focus on topiramate and other modulators of GABA or glutamate function. *CNS Drugs* 2005;19(10):in press.
2. Johnson BA, Ait-Daoud N, Bowden CL, DiClemente CC, Roache JD, Lawson K, et al. Oral topiramate for treatment of alcohol dependence: a randomised controlled trial. *Lancet* 2003;361(9370):1677-1685.

## MEDICAL UPDATES

### 1. CONGESTIVE HEART FAILURE

Heather Ross, M.D. *University of Toronto, 585 University Avenue, NCSB 11C 1203, Toronto, ON, M5G 2N2, Canada*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be able to understand the pathophysiology of heart failure, current therapeutic options, prognosis, and novel therapies.

#### SUMMARY:

New Medical Therapies for CHF Patients Undergoing Valve Surgery.

Congestive Heart Failure (CHF) has reached epidemic proportions, affecting approx. 5,000,000 Americans with 500,000 new cases per year. The prevalence of heart failure increases with increasing age such that 1% over age 65 and 4% over age 70 have CHF. The overall one-year mortality after diagnosis is between 25-40%. The age-adjusted mortality for CHF is 106/100,000, which is greater than the mortality for AIDS and breast cancer combined. The median survival for heart failure patients is currently 1.7 years for males, 3.2 yrs for females with a 5-year age adjusted mortality rate of 45% based on the time period 1990-1999.

Patients with CHF experience significant morbidity, frequently requiring hospital admission. CHF remains the commonest diagnosis that brings a patient to hospital for medical admission. Results of RCT trials in the CHF population have shown that 19% of all patients diagnosed with CHF require at least 1 hospital admission within 1 year of diagnosis and >40% have readmissions within 3-6 months of hospital discharge. However, population based studies suggest higher all cause re-admission rates, specifically 46% within 3 months of discharge and 54% within 6 months. Each hospitalization averages 8 days. Heart failure impacts greatly on the health care system with an overall cost per year for inpatient CHF care of 10 billion dollars. Proven drug therapies are shown in the attached Table.

There is a marked increase in mortality with decreasing ejection fraction and increasing functional class. The mortality from CHF results from sudden cardiac death either with or without premonitory symptoms, progressive heart failure and death from non-cardiac causes. FC II patients are at proportionally higher risk for sudden death and less risk of progressive heart failure. Based on the BBL and ACEI trials the annual risk of death in the treatment arm was 7.2-10.4% and the annual risk of sudden death in a FC II-III patient is approximately 4-7.3%. Whereas FC IV patients are at significantly higher risk of dying from progressive heart failure characterized by increasing shortness of breath, orthopnea, decreasing blood pressure and level of consciousness. Death is usually the result of inexorable progression of pump failure.

There are two clinical trials that have addressed mortality in the truly severely afflicted CHF patient, specifically RALES and REMATCH. In the RALES study the one-year mortality in the placebo arm was 25% and the two-year 41%. However only a small percentage of patients in this study were on BBL, therapy proven to lower mortality. The REMATCH trial reflects the critically ill FC IV CHF patient (NYHA class IV for at least 60 days, EF < 25%, VO<sub>2</sub> < 14 or NYHA class III-IV with at least 14 day inotrope or IABP support) with an overall 92% mortality in the optimally medically treated arm at two years. In addition data from UNOS suggests that patients who have a left ventricular assist device, or are on inotropes, either intermittent, outpatient or home inotropes, have at least a 0.5-2% mortality per week ([www.unos.org](http://www.unos.org)).

## REFERENCES:

1. Yan AT et al *Ann Intern Med* 2005;142:132-145.

### 2. ADD KIDS GET SMART NATURALLY

Richard P. Brown, M.D. *Columbia University College of Physicians and Surgeons, Psychiatry, 86 Sherry Lane, Kingston, NY, 12401-4724*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant should be cognizant of complementary theories about ADD and familiar with data on the efficacy of complementary treatments for ADD.

#### SUMMARY:

We will review complementary theories and treatments for ADD. Treatments to be presented include: minerals, diet, additives, vitamins, essential fatty acids, amino acids, DMAE, centrophenoxine, amiracetam, picamilon, SAME, Rhodiola rosea, ginkgo, melatonin, biofeedback, yoga, meditation, and vestibular stimulation. Dosages, contraindications, side effects, and selection of quality brands will be discussed.

#### REFERENCES:

1. Brown RP, Gerbarg PL, Muskin PR. *Alternative Treatments in Psychiatry in Psychiatry 2nd Edition* edited by Tasman A, Kay J, Lieberman JA., London, UK, John Wiley & Sons, Ltd, 2003, pp. 2147-2183.
2. 7. Brown RP and Gerbarg PL. *Alternative Treatments in Brain Injury in Neuropsychiatry of Traumatic Brain Injury, Second Edition* edited by Silver JM, Yudofsky SC, McAllister TW. Washington, DC, American Psychiatric Press, Inc. 2004.

### 3. TESTOSTERONE REPLACEMENT THERAPY IN THE AGING MALE: IMPLICATIONS FOR PSYCHIATRY AND OTHER DISCIPLINES

Jerald Bain, M.D. *Mt. Sinai Hospital, 600 University Avenue, Suite 1501, Toronto, ON, M5G 1X5, Canada*

#### EDUCATIONAL OBJECTIVES:

At the conclusion of this presentation, the participant will be informed about: testosterone physiology, the decline of testosterone in the aging male, the impact of relative testosterone insufficiency in various systems including mood and cognition, the role of testosterone replacement.

#### SUMMARY:

Testosterone, the major androgen in males, plays a significant role in various bodily systems including the brain, muscles, bones, sex and reproduction, hematopoiesis, masculinization, the autoimmune system, etc. As men age, testosterone production and bioavailability decrease because of changes in the hypothalamic-pituitary-testicular axis. In addition to decreased testosterone production there is decreased bioavailability of testosterone largely because of an increase in sex hormone binding globulin which has a high affinity for testosterone, making less available for biological action. Also as men age, they acquire new symptoms such as: weakness, fatigue, osteopenia, osteoporosis, depression, decreased cognition, decreased libido, erectile dysfunction, anemia, etc. These symptoms may be due to a variety of metabolic, physical and social factors including testosterone insufficiency. There is a subset of aging symptomatic men who have reduced testosterone availability and who are candidates for a trial of TRT. The search for testosterone insufficiency and subsequent TRT may be a valuable adjunct in the treatment of men with a spectrum of disorders including psychiatric syndromes.

## REFERENCES:

1. Rhoden EL., Morgentaler A: Risks of Testosterone Replacement Therapy and Recommendations for Monitoring. *N Eng J jMed* 2004; 350:482-492.
2. Pope HG, Cohane GH, Kanayana G, Siegel AJ, Hudson JI: Testosterone replacement for Men With Refractory Depression: A Randomized, Placebo-Controlled Trial. *Am J Psychiatry* 2003; 160: 105-111.

#### 4. LIVER TRANSPLANT UPDATE: CURRENT OUTCOMES AND CHALLENGES IN 2006

Philip Wong, M.D. *University of Toronto, Gastroenterology, Hepatology, Multi-Organ Transplantation, 253 Donlea Drive, Toronto, ON, M4G 2N3, Canada*

## EDUCATIONAL OBJECTIVES:

At the end of this presentation, the participant should understand the poor prognosis of patients with cirrhosis, and be aware of advances made within the field of liver transplantation, and its challenges, mainly organ donor shortage.

## SUMMARY:

Liver disease is a leading cause of death worldwide, with 1 in 12 Canadians, over their lifetime, developing a disorder of their liver

or biliary tract. Liver transplantation has made significant progress in this last century, with improvements in patient and graft survival, with current 1, 5 and 10 year survival rates of 85%, 75% and 65%.

An inadequate supply of donor organs remains the major challenge in transplantation, with an annual death rate of 15-20% for patients on the waiting list in Canada. In the United States, UNOS (United Network of Organ Sharing) has reported 1 patient death on the waiting list every 4 hours. Strategies to improve organ donation, use of "expanded criteria donors", and surgical techniques such as split liver and living donor liver transplantation have increased the available pool of organs. Adoption of a new organ allocation system in the United States, the MELD (Model of End-stage Liver Disease) score, has de-emphasized time on the waiting list as the primary selection criteria for patients.

This presentation will review the prognosis of patients with cirrhosis, as well as advancements in surgical technique, peri-operative medical care and the impact of newer, more potent immunosuppressive drugs. Organ allocation systems and their expected impact on the donor organ shortage will be discussed.

## REFERENCES:

1. Journal Article - Weisner RH: Patient selection in an era of donor liver shortage. *Nature Clinical Practice* 2005; 2 (1): 24-30.
2. Journal Article - Neuberger J: Developments in liver transplantation. *Gut* 2004;53;759-768.

## PRESIDENTIAL SYMPOSIA

### 1. THE PUBLIC MENTAL HEALTH SYSTEM: CRITICAL ISSUES

*APA Committee on Family Violence and Abuse and Council on Social Issues and Public Psychiatry*

#### 1. Domestic Violence, Lifetime Trauma and Public Mental Health: Critical Issues for Policy, Prevention and Service Delivery

Carole Warshaw, M.D.

#### 2. Ballot Initiative Creates New Services for Children and Youth

William Arroyo MD

### EDUCATIONAL OBJECTIVES:

To understand: 1. the critical issues facing the U.S. public mental health system (funding, work force, structural, legal, practice, access and delivery), 2. what an ideal public mental health system should look like, and 3. the toll early childhood trauma takes on that system and society as a whole.

### SUMMARY:

Exposure to current and/or past abuse is prevalent if not endemic in the lives of individuals receiving public mental health services, plays a significant role in the development and exacerbation of psychiatric disorders and influences the course of recovery from mental illness. Poverty, homelessness, institutionalization, unsafe living conditions, dependence on caregivers, lack of appropriate services, stigma associated with mental illness and other forms of discrimination exacerbate these risks. In addition, research on the pervasiveness of adverse childhood experiences and the impact of interpersonal trauma on the developing brain, on children's developmental trajectories and on subsequent psychiatric morbidity underscore the importance of examining the influence of lifetime trauma on mental health and mental illness and reframing our notions of "public mental health". A number of state and federal initiatives have developed strategies for addressing the effects of abuse and violence among adults and, more recently, among children who qualify for publicly-funded mental health services but current fiscal conditions have made these efforts difficult to sustain. This talk will review current research on the prevalence and impact of domestic violence and lifetime trauma among people seen in public mental health settings; raise key issues faced by survivors dealing with both current and past abuse; discuss critical gaps in policy, practice and training; and present successful and/or promising models for addressing these concerns. It will also provide a framework for developing a preventive public mental health agenda in light of recent research findings.

The Mental Health Services Act passed as a ballot initiative in California in 2004 will generate approximately one billion dollars each year. This fund will be for mental health services and related services for all ages in California. The planning for the use of these funds is a county stakeholder-driven process in each county. It will create a "state-of-the-art, culturally competent system that promotes recovery/wellness for adults and older adults with severe mental illness and resiliency for children with serious emotional disorders and their families". In regard to children and adolescents, the system of care principles are the framework for the implementation of these newly funded services. An implementation of specific strategies to achieve more meaningful collaboration with child welfare, juvenile justice, education and primary healthcare, in order to provide comprehensive services designed to enable youth to be safe, to live at home, to attend and succeed in school, abide by the law, be healthy and have meaningful relationships with their peers. A few counties, including Los Angeles, will have implemented their services in Spring.

The stakeholder process and the elements of the Los Angeles County plan that pertain to children and adolescents will be presented.

### REFERENCES:

1. Warshaw C., Gugenheim AM, Moroney G, Barnes: H. Fragmented Services, Unmet Needs: Building Collaboration Between The Mental Health And Domestic Violence Communities. *Health Affairs* September/October 2003; 230-234.
2. A Readers Guide to the Mental Health Services Act, Community Services and Supports.

### 2. INTERNATIONAL ADVOCACY TOWARDS A PSYCHIATRY FOR THE PERSON

*World Psychiatric Association*

#### 3. General Perspectives on National and International Advocacy

Steven S. Sharfstein, M.D.

#### 4. Towards a Person-Centered Comprehensive Diagnosis

Juan E. Mezzich, M.D.

#### 5. Science, Faith and Values in Healthcare Provisions: a Medicine of The Person

John L. Cox, M.D.

#### 6. Person and Community Centered Mental Health Care in Developing Countries.

Parameshvara Deva, M.D.

#### 7. Advocacy for Women's and Children's Mental Health

Marta B. Rondon, M.D.

#### 8. International Advocacy for Patient's Human Rights

Otto Steinfeldt-Foss, M.D.

### EDUCATIONAL OBJECTIVES:

At the end of this Symposium the participants will be able to recognize new developments for the international and national advocacy towards psychiatry for the person, including comprehensive diagnosis, medicine of the person, services in developing countries, women's and children's mental health and patient's human rights.

### SUMMARY:

Placing the human person at the center of psychiatry and mental health is increasingly becoming a global issue. Effective promotion of this perspective requires committed advocacy. Without advocacy psychiatric patients have low priority for national health care systems. They are warehoused in large institutions or left without resources in unprepared communities. They become homeless and find themselves incarcerated for petty crimes. This symposium will address the conceptual bases for effective and differentiated advocacy in psychiatry and will review pertinent international experiences and perspectives. First, a theoretical framework for placing in perspective national and international experiences will be presented. A new approach to diagnosis focused on the health of the whole person will be delineated next. Then, an emerging international movement on medicine of the person and its concern for holistic health care will be outlined. The need for culture-informed educational efforts and both person- and community- centered service organization and as well as pertinent illustrative experiences in developing countries will be discussed. Recent efforts to promote the health and rights of women and children, often neglected across the world, will be reviewed. Solidarity movements across national borders to protect the dignity and human rights of psychiatric patients will be described. These perspectives, experiences and concerns bring to the front that helping the whole person is fundamental to the soul of medicine and psychiatry.

According to the Oxford English Dictionary, to advocate is to "publicly defend, maintain, recommend, stand up for, or raise one's voice on behalf of a proposal or tenet." Psychiatrists are natural

advocates not only because of our special expertise and knowledge but also because of our public influence. We mostly, however, advocate for our own needs and for the needs of individual patients. Advocating for a universe of patients and the public interest requires pursuing resource allocation decisions and public policies with governmental and non-governmental systems and institutions. Persons with mental illness are among the most disenfranchised of all medically-ill patients. Psychiatrists must pursue advocacy in both public and private sectors. Our advocacy nationally and internationally includes overcoming the stigma of a psychiatric diagnosis, promoting the effectiveness of our treatment, and enhancing access to psychiatrists and the mental health treatment delivery system. This advocacy must focus on the prevention of disabilities, school failures, criminalization, homelessness, and incarceration of individuals with mental disorders. In this paper, we will review the advocacy agenda in the United States and compare it to that of other countries.

New developments in health care and public health across the world are pointing out the need to deal with the totality of the person who presents for care, addressing both health problems present and opportunities for health promotion. Therefore, the task of the clinician evaluating a patient must go beyond identifying psychiatric disorders and also cover related health problems as well as positive aspects of health. In response to this need, a comprehensive diagnosis model is emerging, covering a broad range of health issues from illnesses, to resulting disabilities, social stressors and supports and quality of life. To this effect, the model employs all relevant assessment tools, from objective to subjective, categorization as well as dimensional ratings and idiographic narratives. Additionally, it promotes the interaction among clinicians, the patient, the family and relevant others. Comprehensive diagnosis would thus imply the use of all relevant diagnostic tools for an assessment of health with the active participation of clinicians, patients and family. In so doing, it strives to recognize the dignity of the person presenting for care, reflecting a commitment to high scientific, humanistic and ethical aspirations.

Based on international experience, this summary presentation will describe the relevance of Paul Tournier's *Medicine of the Person* for modern mental health services.

This clinical approach, first described in post-war Europe, considers the values and beliefs of both doctor and patient, as well as their relationship. This approach includes also understanding of scientific medicine.

It extends the bio-psychosocial approach by including spiritual meanings particularly relevant for multi-cultural, multi-faith societies.

The educational implications of this approach, desired by many user and advocacy groups, include increased training in both individual and group psychotherapy, as well as greater understanding of ethical and religious insights.

Models of the brain/mind continuum and of the 'religious brain' may facilitate this old wine in new wine skins.

Mental health care in most developing countries has always been community centered. It was the introduction in the 1700s of the then state of the art mental Asylums of Europe to many developing countries by colonial powers that led to the incarceration and hospital centered mental health and psychiatric services. Although effective treatments such as anti-psychotics or Electroconvulsive treatments were not of course available, the family and community care based on the use of herbs, religious practices and rituals calmed many mentally ill.

Indeed these practices go on in many a developing country even today, where the so called modern psychiatry consists often of one psychiatrist or psychiatric nurse who oversees in locked hospitals overcrowded mentally ill in appalling conditions. The care of mentally ill in developing countries even among the highly educated is in the family and in the home or community.

This paper describes the pros and cons of community care and individual family care and offers some suggestions for improvement of mental health care in developing countries

The patterns of maternal and child health in the world reveal great inequalities in status and access to health care within and between countries. These differences extend to mental health. Although women's and children's mental health present different challenges, and at some points, pull in different directions, they are inextricably linked. The apparently conflicting goals of empowering women, through lower reproductive burdens and better access to education and employment and of protecting children, through fuller participation of family members in their care, must be negotiated in culturally sensitive terms. Better mental health for women and children has to do with much more than better treatment for anxiety and depression. It includes efforts to insure lower infant and maternal mortality rates, access to essential drugs, legislative changes to stop violence, better access to education and substantial reduction of poverty. In the presentation, advocacy at the following levels will be addressed: human rights of mentally ill women and children; access to mental health care; protection from the shattering effects of violence in all its forms, and accountability from the people and institutions whose duty it is to protect the rights of women and children.

Health services throughout the world are finding themselves in turmoil, reflecting an ongoing sociocultural disintegration, illustrated by increase in violence- and suicide- rates, drug-addiction problems and Aids-epidemics. New economic steering mechanisms are changing priorities in a way that is not always professionally and scientifically based. The ongoing technological developments in medicine including psychiatry, are creating new opportunities but also danger of further technological fixation with inbuilt contempt for more abstract humanistic values that are the bases for medicine as the healing art.

It is a paradox that from the 1980s onwards, when all the main declarations on human- and patient-rights were formulated, these rights are more threatened than ever.

An overview of practical experiences from the role of mediator in conflict resolution and of program activities for securing and protecting the dignity and rights of psychiatric patients across national borders, will be presented.

## REFERENCES:

1. Henry Foley and Steven Sharfstein, *MADNESS AND GOVERNMENT--Who Cares for the Mentally Ill?* APPI Press, 1983. Best, S.
2. Mezzich JE: Comprehensive Diagnosis: a conceptual basis for future diagnostic systems. *Psychopathology* 35 : 162 - 165, 2002.
3. COX J. L. (Ed): *Medicine for the Person; Faith, Values & Science in Health Care Provision*. Jessica Kingsley Publishers, London, U. K., in Press.
4. M Parameashvara Deva (1991.) *A Brief Outline of Clinical Psychological Medicine* Pp8-12 Ophir Publishers, Kelang Malaysia.
5. Freedman LP, Waldmann RJ, De Pinho H et al: Transforming health systems to improve the lives of women and children. *Lancet* 2005; 365:997-1000.
6. International Criminal Tribunals for the former Yugoslavia and Rwanda, The Hague/The Norwegian Medical Association, Oslo: Non-Governmental Organizations and the Tribunals: a new Partnership. Oslo/The Hague; 1996.

## 3. COLLABORATION IN CRISIS: ACADEMIC MEDICAL CENTERS' RESPONSE TO HURRICANES KATRINA AND RITA

### 10. The Acute Clinical Responses

Kimberly A. Arlinghaus, M.D.

### 11. Be Nice to Your Neighbors:

How Tulane University Adult Psychiatry and Baylor College of Medicine Worked Together to Rescue a Residency Program and Provide Continued Psychiatry



**Education in the Aftermath of Hurricane Katrina.**

Leslie E. Lawrence, M.D.

**12. Administrative Departments of Psychiatry During The Katrina Disaster**

Stuart C. Yudofsky, M.D.

**EDUCATIONAL OBJECTIVES:**

1. To learn how academic institutions in areas threatened and affected by recent hurricanes developed novel, flexible responses to maintain their academic mission.

2. To be aware of psychiatric clinical care organized and delivered by local academic and healthcare institutions as part of hurricane response efforts.

**SUMMARY:**

The extraordinary destruction in New Orleans from Hurricane Katrina produced major problems for Tulane University School of Medicine and the New Orleans VA Medical Center. Houston's rapid emergence as a major evacuation site for New Orleanians called forth a major public health and academic response from Baylor College of Medicine and the Michael E. DeBakey VA Medical Center in Houston; this response expanded when Hurricane Rita threatened the coast of the Texas-Louisiana border shortly afterward. These events led to a novel partnership between the two medical schools and the two VA Medical Centers that has included clinical, educational, and administrative collaboration. This symposium will examine multiple aspects of the disaster response and academic collaboration between the departments of psychiatry in these four institutions. Faculty and residents from New Orleans and Houston will interview each other to elaborate the clinical, educational, and administrative challenges and responses on both sides, and will summarize lessons learned for future disaster response planning and crisis collaboration by academic institutions.

In this presentation, academic psychiatrists and residents from New Orleans and Houston will interview one another about their experiences during Hurricane Katrina. Two psychiatry residents from Tulane who remained in New Orleans during Katrina will describe the clinical and "human" issues they confronted as a result of the storm. The Tulane psychiatry residency training director will interview two faculty members and one resident from the Menninger Department of Psychiatry at Baylor College of Medicine about their interventions with evacuees. The overall goal of this presentation is to teach participants how to respond to emergency situations that paralyze a city.

How do two large medical communities coordinate together in massive chaos during the country's most catastrophic event, Hurricane Katrina, to assure the continued education of Psychiatric residents and medical students? Like thousands of other New Orleans evacuees, Tulane University needed a place to turn following the devastation of hurricane Katrina. Fortunately, our neighbor, Baylor College of Medicine was equipped and ready to provide support.

The Adult Psychiatry Residency Programs at Tulane University and Baylor College of Medicine will discuss their unique and unprecedented experience through a series of interviews and slides. Each residency program director, medical student education director and chief resident will be interviewed by their counterpart of the opposite school regarding their experiences and challenges. Lessons learned and applications for disaster planning in general will be discussed.

The responses of the Faculty and Staff of Menninger Department of Psychiatry of Baylor College of Medicine and of the Department of Psychiatry of the Tulane Medical School to the multifarious needs of evacuees to Houston from Hurricane Katrina required significant coordination and direct participation at the level of chairman. Dr. Daniel K. Winstead, Chairman of the Department of Psychiatry at Tulane Medical School and the presenter, Chairman of the Menninger Department of Psychiatry at Baylor College of Medicine will engage

in a dialogue that highlights the key elements of this coordination. Representative examples of their experiences with patients, medical students, residents, and faculty will also be presented.

**REFERENCES:**

1. Sproat S. Overview of the health and medical response to hurricanes Katrina and Rita. *Okla Nurse*. 2005 Dec;2006 Feb;50(4):13-4.
2. Frank IC. Emergency response to the Gulf Coast devastation by Hurricanes Katrina and Rita: experiences and impressions. *J Emerg Nurs*. 2005 Dec;31(6):526-47.
3. not applicable.
4. not applicable.
5. Shore MF, Vanelli M: Leadership. In *Textbook of Administrative Psychiatry*, edited by Talbott JA, Hales RE, Washington, American Psychiatric Publishing, Inc., 2001, pp43-51.
6. Santiago JM: Planning: Organizational Responses to Uncertainty in Unstable and Complex Environments. In *Textbook of Administrative Psychiatry*, edited by Talbott JA, Hales RE, Washington, American Psychiatric Publishing, 2001, pp53-60.

**4. PSYCHIATRIC PARTICIPATION IN INTERROGATION OF DETAINEES: ETHICAL CONSIDERATIONS**

*Chair:* Steven S. Sharfstein, M.D., *Sheppard Pratt Health System, 6501 North Charles Street, Baltimore, MD 21204, Co-Chair:* Paul S. Appelbaum, M.D. *Presenters:* Howard V. Zonona, M.D., Kevin C. Kiley, M.D., Alan A. Stone, M.D.

**EDUCATIONAL OBJECTIVES:**

Participants will be able to be aware of the allegations regarding physician participation in national security interrogations of detainees; discuss the ethical standards that apply to physicians' roles in these settings; understand the APA's position on psychiatric participation in interrogations.

**SUMMARY:**

Media reports of the involvement of psychiatrists and other mental health professionals in interrogations of national security detainees in Iraq, Afghanistan, and Guantanamo Bay, Cuba have aroused considerable concern among the involved professions. Among the allegations are that psychiatrists and psychologists have provided advice on how to interrogate specific detainees to break down their resistance to providing information. It has also been alleged that the interrogations have involved the use of physical and psychological stress, and that information from the treatment records of detainees may have been made available to interrogators. These reports raise questions about the proper role, if any, for psychiatrists in the interrogation of detainees in military, security, and civil settings. The symposium, involving leading representatives from psychiatry and from military medicine, will begin with a review of what is known and what has been alleged about psychiatrists' involvement in interrogations in national security settings. In response, the Surgeon General of the Army will describe current procedures and safeguards and will discuss the ethical challenges in these interrogation situations. This will be followed by a critique of the military approach, and then by a discussion of the APA's position on psychiatrists' participation in interrogations.

Dr. Steven Sharfstein, APA President, will serve as discussant, offering reflections based on his inspection visit to the detainee facility at Guantanamo Bay, Cuba. Ample time will be allotted for members of the audience to pose questions and to join the discussion.

**REFERENCES:**

1. Rubenstein L, Pross C, Davidoff F, Iacopino V: Coercive US interrogation policies: a challenge to medical ethics. *JAMA* 2005; 294:1544-1549.
2. Vedantam S: Medical experts debate role in facilitating interrogations. *Washington Post*, November 14, 2005, A19.

## RESEARCH ADVANCES IN MEDICINE

### AGING, LONGEVITY AND NEUROLOGICAL DISORDERS

#### NEUROBEHAVIORAL OUTCOMES FOLLOWING CARDIAC SURGERY: HOW CAN THEY BE IMPROVED?

*Chairs:* Anand Pandya, M.D.

*Presenters:* Stephanie J. Brister, M.D., Angela M. Cheung, M.D.,  
Janis Miyasaki, M.D., Donald Redelmeier, M.D.

#### EDUCATIONAL OBJECTIVES:

At the end of this session, the participant will be able to identify  
4 areas of new research in medicine and 4 research techniques that  
are used outside of psychiatry

#### SUMMARY:

Mortality associated with cardiac surgery has dramatically improved over the last decade. As a result increasing attention is being placed on factors which contribute to the morbidity associated with surgery. Adverse neurobehavioral outcomes occur in up to 75% of patients undergoing cardiac surgery. These adverse outcomes contribute to decreased quality of life and increased health care costs.

In this presentation the following will be discussed 1) causes of acute confusional states, neurocognitive deficits and stroke. 2) clinical impact of these states in the cardiac surgery patient 3) impact on health care costs 4) current treatment modalities and 5) promising areas of research..

#### REFERENCES:

1. Bucerius J, Gummert JF, Borger MA, Walther T, Doll N, Falk V, Schmidt DV, Mohr FW: Predictors of Delirium after Cardiac Surgery: Effect of Beating -Heart (Off-Pump) Surgery. *J Thorac Cardiovasc Surg.* 2004; 127 (1):57-64.
2. Rothenhausler HB, Grieser B, Nollert G, Reichart B, Schelling G, Kapfhammer HP: Psychiatric and Psychosocial outcome of Cardiac Surgery with Cardiopulmonary Bypass : A Prospective 12- Month Follow Up Study. *Gen Hosp Psychiatry.* 2005, 27 (1):18-28.

## ROUNDTABLE

### CHILD AND ADOLESCENT BIPOLAR DISORDER: OUT OF A DIAGNOSTIC QUANDRY

*Chairs:* Richard E. D'Alli, M.D.

*Presenters:* Ellen Leibenluft, M.Ed., Joseph Biederman, M.D.,  
Barbara Geller, M.D., Robert A. Kowatch, M.D.

#### EDUCATIONAL OBJECTIVES:

1. The audience will appreciate the phenomenology of pediatric bipolar disorder in contrast to adult bipolar disorder 2. The audience will appreciate the lines of reasoning in determining whether pediatric bipolar disorder is continuous with adult bipolar disorder

#### SUMMARY:

Despite its recognition years ago, treatment guidelines for childhood and adolescent bipolar disorder have only recently been pub-

lished. However, not addressed in the guidelines is the fundamental issue that the behavioral dysregulation recognized today as pediatric bipolar disorder is fundamentally different from the illness described in DSM-IV TR. Differences exist among investigators as to whether pediatric bipolar disorder represents the same illness as that which manifests in adulthood. Some investigators posit that childhood mania is atypical. Few disagree that the turbulent affective dysregulation generally ascribed to pediatric bipolar disorder is simply not well described by DSM-IV TR. During this Roundtable leaders in the field of pediatric bipolar disorder research will summarize the state of the evolving diagnostic paradigm for pediatric bipolar disorder and implications for treatment.

#### REFERENCES:

1. Kowatch, RA, et al., "Treatment Guidelines for Children and Adolescents.
2. Kowatch, RA, et al., "Review and Meta-Analysis of the Phenomenology and.

## SYLLABUS INDEX

## A

Aaronson, Scott T. . . . . 73  
 Abbey, Susan . . . . . 317  
 Abel, Kathryn M. . . . . 105  
 Abi-Dargham, Anissa . . . . . 14, 37  
 Abikoff, Howard . . . . . 71  
 Abrams, Karen M. . . . . 230  
 Abramson, Ronald D. . . . . 243  
 Abuzzahab, Sr., Farouk S. . . . . 13  
 Adams, Margo S. . . . . 286  
 Addington, Jean . . . . . 199  
 Adetunji, Babatunde A. . . . . 219  
 Adityanjee, A. . . . . 174  
 Adler, Lawrence W. . . . . 104  
 Adler, Lenard A. . . . . 74  
 Adson, David E. . . . . 13, 151  
 Ahmed, Iqbal . . . . . 144, 288  
 Aisen, Paul . . . . . 167  
 Aizenberg, Dov . . . . . 120  
 Aizenstein, Howard J. . . . . 208  
 Akaka, Jeffrey . . . . . 297  
 Akarsu, Eyup . . . . . 87  
 Akbiyik, Derya Iren . . . . . 126  
 Akiskal, Hagop S. . . . . 27, 91  
 Alaraisänen, Antti S. . . . . 118  
 Alarcon, Renato D. . . . . 325  
 Alegria, Margarita . . . . . 249  
 Alexopoulos, George S. . . . . 210  
 Alger, Ian E. . . . . 306, 316  
 Alicata, Daniel A. . . . . 197  
 Allen, Albert J. . . . . 124  
 Allen, Jon G. . . . . 220  
 Allison, Kelly . . . . . 209  
 Almasy, Laura . . . . . 204  
 Almeida, Goretti . . . . . 100  
 Almeida, Jose M. Caldas de . . . . . 188  
 Alpert, Jonathan E. . . . . 63, 73, 103  
 Alpert, Jonathan Edward . . . . . 3  
 Al-Samarrai, Sadiq H. . . . . 334  
 Altemus, Margaret . . . . . 312  
 Alter, Carol L. . . . . 292  
 Alves-Bradford, Jean-Marie E. . . . . 302  
 Amaya-Naranjo, Walter . . . . . 83  
 Ambidge, Chris . . . . . 296  
 Ameringen, Michael Van . . . . . 114  
 Amiri, Shahrads R. . . . . 322  
 Amsterdam, Jay D. . . . . 74  
 Ancoli-Israel, Sonia . . . . . 182  
 Andermann, Lisa F. . . . . 320  
 Andersen, Susan L. . . . . 153  
 Anderson, Allan A. . . . . 286, 289  
 Anderson, Tanya R. . . . . 295  
 Andrade, Naleen N. . . . . 307, 329  
 Andreasen, Nancy C. . . . . 66  
 Andree, Terrance H. . . . . 112  
 Antia, Diana . . . . . 315  
 Anzia, Joan M. . . . . 300, 322  
 Aoyama, Naoko . . . . . 93

Appelbaum, Paul S. . . . . 129, 130, 201,  
 279, 303, 374  
 Appleby, Louis . . . . . 105  
 Apter-Danon, Gisèle . . . . . 110, 155  
 Araujo, Katie . . . . . 83  
 Arboleda-Florez, Julio . . . . . 289  
 Arboleda-Florez, Julio E. . . . . 272  
 Arciniegas, David B. . . . . 32  
 Arey, Britton A. . . . . 270  
 Arlinghaus, Kimberly A. . . . . 373  
 Arnold, Lesley M. . . . . 16, 73  
 Arnsten, Amy F. . . . . 18  
 Arntz, Arnoud . . . . . 235  
 Arora, Sanjay . . . . . 98, 124  
 Arroyo, William . . . . . 285, 294  
 Assadi, Seyed Mohammad . . . . . 80, 96  
 Atger, Frederic . . . . . 214  
 Atre-Vaidya, Nutan . . . . . 290  
 Attia, Evelyn . . . . . 172  
 Auger, R. Robert . . . . . 7, 60  
 Aviv, Alex . . . . . 82  
 Awad, George . . . . . 149  
 Ayhan, Ismail Hakki . . . . . 87

## B

Bach, Dominik . . . . . 245  
 Bagby, R. Michael . . . . . 152, 212  
 Bailer, Ursula . . . . . 208  
 Bain, Jerald . . . . . 370  
 Baker, F.M. . . . . 331  
 Baldassano, Claudia F. . . . . 5  
 Baldessarini, Ross J. . . . . 27  
 Ballon, Bruce C. . . . . 303, 317, 335, 342  
 Bankole, Azziza O. . . . . 225, 226  
 Banon, Elisabeth . . . . . 247  
 Barak, Yoram . . . . . 82, 94, 120  
 Barber, Jacques . . . . . 161  
 Barber, Mary E. . . . . 332  
 Barenboim, Arkady . . . . . 218  
 Baron, David A. . . . . 332  
 Baroni, Stefano . . . . . 87  
 Barreira, Paul J. . . . . 279  
 Baruch, Yehuda . . . . . 82  
 Bassett, Anne S. . . . . 339  
 Bates, Dorothy . . . . . 357  
 Bates, G. William . . . . . 229  
 Batki, Steven L. . . . . 241  
 Baum, Antonia L. . . . . 134  
 Baxter, Elizabeth A. . . . . 268, 343  
 Beck, Aaron T. . . . . 364  
 Beck, Judith S. . . . . 221, 317, 318, 338  
 Beck, Philip R. . . . . 247  
 Becker, Daniel F. . . . . 82  
 Becker, Philip M. . . . . 60  
 Beekman, Aartjan . . . . . 192  
 Beekman, Aartjan T.F. . . . . 193  
 Beezhold, Julian . . . . . 308  
 Begleiter, Henri . . . . . 204

Beitman, Bernard D. . . . . 289  
 Belenky, Gregory . . . . . 7  
 Belfort M.D., Edgard . . . . . 188  
 Bell, Carl C. . . . . 290, 298  
 Bellack, Alan S. . . . . 140  
 Bender, Donna S. . . . . 347  
 Benedek, Elissa P. . . . . 322  
 Benedek, Lana M. . . . . 317, 319, 335  
 Bennett, David A. . . . . 28  
 Bennett, Mark . . . . . 114  
 Benowitz, Neal . . . . . 207  
 Berg, Henk van den . . . . . 327  
 Berger, Ralph . . . . . 185  
 Berkman, Alan . . . . . 128  
 Berlin, Jon S. . . . . 283  
 Berlin, Robin . . . . . 120  
 Bernstein, David P. . . . . 76, 235  
 Berrettini, Wade H. . . . . 207  
 Berthaud, Vladimir . . . . . 184  
 Beyer, Chad E. . . . . 112  
 Beyer, John L. . . . . 38, 57  
 Bhanji, Nadeem H. . . . . 332  
 Bialer, Philip . . . . . 217  
 Biederman, Joseph . . . . . 33, 376  
 Bierut, Laura J. . . . . 204, 205  
 Bilder, Robert M. . . . . 21  
 Birmingham, Sarah . . . . . 77  
 Birmendorf, Catherine A. . . . . 312  
 Bisaga, Adam M. . . . . 194  
 Bivens, Nancy M. . . . . 339  
 Bixler, Edward . . . . . 135  
 Bizamcer, Aurelia . . . . . 315  
 Bizouard, Paul . . . . . 213  
 Bjarnadottir, S. . . . . 273  
 Bjorgvinsson, Throstur . . . . . 220  
 Black, Donald W. . . . . 174  
 Blanch, Vincent J. . . . . 284  
 Blanco-Jerez M.D., Carlos . . . . . 145  
 Blanco-Jerez, Carlos . . . . . 174  
 Blank, Karen . . . . . 81  
 Blaustein, Mel . . . . . 291  
 Blazer II, Dan G. . . . . 259  
 Bleiberg, Efrain . . . . . 221  
 Bloch, Sidney . . . . . 133  
 Bloom, Floyd E. . . . . 169, 351  
 Blume, Sheila B. . . . . 340  
 Bodenheimer, Alison . . . . . 218  
 Boellner, Samuel W. . . . . 71  
 Bogan, Richard . . . . . 97  
 Bohus, Martin . . . . . 171, 347  
 Bokarius, Vladimir . . . . . 321  
 Boland, Robert J. . . . . 147  
 Bond, Michael P. . . . . 248  
 Bonnie, Richard . . . . . 200  
 Boonyanaruthee, Vudhichai . . . . . 94  
 Boronow, John J. . . . . 300  
 Borson, Soo . . . . . 191  
 Borus, Jonathan F. . . . . 295  
 Bostic, Jeff Q. . . . . 6

- Bouchard, Guylain ..... 275  
 Boulanger, Christophe ..... 141  
 Boulanger, Pierre ..... 258  
 Bowden, Charles L. .... 51  
 Bowskill, Richard ..... 90, 125  
 Bradford, DiAnne ..... 151  
 Brady, Kathleen T. .... 56, 64, 240  
 Braff, David L. .... 202  
 Braus, Dieter F. .... 92  
 Brister, Stephanie J. .... 375  
 Brnabic, Alan J. .... 89  
 Brodtkin, Edward S. .... 313  
 Brook, David W. .... 338  
 Brooks, Beth Ann ..... 307  
 Brown, E. Sherwood ..... 123  
 Brown, Richard P. .... 144, 370  
 Bruce, Martha L. .... 351  
 Brunette, Mary F. .... 163  
 Buchin, Jacqueline ..... 95  
 Bucholz, Kathleen ..... 205  
 Bucholz, Kathleen K. .... 204  
 Buckley, Peter F. .... 10, 145  
 Budur, Kumaraswamy ..... 219  
 Buechel, Christian ..... 92  
 Bui, Viet Q. .... 335  
 Bulik, Cynthia M. .... 209  
 Bullmore, Edward ..... 101  
 Bulmash, Eric ..... 152  
 Burd, Ronald M. .... 286  
 Burkholder, Page ..... 306, 325  
 Bursztajn, Harold J. .... 333  
 Burt, Vivien K. .... 305  
 Busch, Kenneth G. .... 298  
 Bush, George ..... 34, 45  
 Butler, Lisa D. .... 133  
 Butterfield, Marian I. .... 156, 189,  
 237, 314, 351  
 Buwalda, Victor J.A. .... 327  
 Buysse, Daniel J. .... 7, 36
- C**
- Cabaj, Robert P. .... 253, 302  
 Cagande, Consuelo C. .... 265  
 Cahill, Shawn ..... 195  
 Caivano, Norana I. .... 311  
 Calabrese, Joseph R. . 12, 74, 75, 89, 166  
 Califano, Joseph ..... 358  
 Callahan, Jr., William E. .... 193, 194,  
 318, 320  
 Campanini, Paolo ..... 176  
 Campbell, Nioaka N. .... 141, 342  
 Campillo, Horacio A. .... 83  
 Campo, Ana E. .... 294  
 Campo-Arias, Adalberto .... 78, 83, 122  
 Cankurtaran, Eylem ..... 87  
 Cappelleri, Joseph C. .... 107  
 Caraballo, Angel A. .... 288  
 Cardoni, Alex A. .... 75  
 Carey, Michael P. .... 128  
 Carlat, Daniel J. .... 78  
 Carlat M.D., Daniel J. .... 217  
 Carlson, Robert W. .... 133  
 Carpenter, Linda L. .... 13, 20  
 Carpenter, Jr., William T. .... 355  
 Carter, Jacqueline ..... 172  
 Carton, Solange ..... 214  
 Cartwright, Rosalind D. .... 250  
 Case, Brady G. .... 291  
 Casey, Daniel E. .... 304  
 Casiano, Delane E. .... 293  
 Castellanos, Daniel ..... 301  
 Castro, Carl A. .... 276  
 Catapano, Lisa A. .... 283, 302  
 Catena, Mario ..... 87  
 Caubel, Josephine M. .... 262  
 Celenza, Andrea ..... 321  
 Celestin, Leon-Patrice ..... 96, 110  
 Celestin-Westreich, Smadar .... 96, 110  
 Celis-Perdomo, Antonio ..... 89  
 Cerro, Lorri ..... 104  
 Chamberlain, Sam R. .... 245  
 Chambers, Robert A. .... 186  
 Chandra, Prabha S. .... 128  
 Chang, Grace ..... 357  
 Chang, Kiki D. .... 4, 50  
 Chang, Linda ..... 197  
 Chapman, Laura M. .... 254  
 Charney, Dennis S. .... 357  
 Charnsilp, Chawanant ..... 94  
 Chatoor, Irene ..... 296  
 Chaudhry, Haroon R. .... 131, 360  
 Chen, Andrew C.H. .... 359  
 Chen, Ming-Chao ..... 80  
 Cheung, Angela M. .... 375  
 Childress, Anna R. .... 191  
 Choi-Kain, Lois W. .... 286, 288  
 Chong, Steve Choong Kam ..... 310  
 Chou, Frank H. .... 96  
 Chou, Li-Shiu ..... 80  
 Chou, Miao-Chun ..... 124  
 Chow, Eva W.C. .... 339  
 Christodoulou, George ..... 289  
 Christodoulou, George G. .... 132  
 Chuang, Henry T. .... 121  
 Chung, Henry ..... 227  
 Ciccocioppo, Roberto ..... 252  
 Ciccone, J. Richard ..... 273  
 Ciechanowski, Paul S. .... 182  
 Citrome, Leslie L. .... 105, 139  
 Clark, Duncan B. .... 231  
 Clark, Lee Anna ..... 235  
 Clarke, David ..... 227  
 Clarke, David M. .... 133  
 Clarke, Norma V. .... 220  
 Clarkin, John F. .... 172  
 Classen, Catherine ..... 133  
 Clatworthy, Jane ..... 90, 125  
 Clayton, Anita H. .... 3  
 Clemens, Norman A. .... 289  
 Cloitre, Marylene ..... 154, 216  
 Cloninger, C. Robert ..... 260  
 Cochran, Susan D. .... 302  
 Cogan, Jeanine C. .... 209  
 Cohen, Carl I. .... 226, 288  
 Cohen, Lisa ..... 224  
 Cohen, Lisa J. .... 217  
 Coleman, Yolonda R. .... 288  
 collaborators, COGA ..... 204  
 Collins, Gary R. .... 157  
 Collins, Pamela Y. .... 128  
 Collison, Joan M. .... 141  
 Colliver, James D. .... 197  
 Comas-Diaz, Lilliam ..... 281  
 Combrinck-Graham, Lee ..... 293  
 Comella, Cynthia L. .... 61  
 Comer, James P. .... 368  
 Compton III, Wilson M. .... 146  
 Compton, Wilson M. .... 238  
 Compton III, Wilson M. .... 238  
 Compton, Wilson M. .... 357  
 Conley, Robert R. .... 138, 355  
 Constable, Robert T. .... 150  
 Cook, Michele ..... 171  
 Cora-Locatelli, Gabriella ..... 294  
 Corcoran, Cheryl ..... 52  
 Corcos, Maurice ..... 213, 214  
 Cornblatt, Barbara A. .... 199  
 Cornelius, Jack R. .... 232  
 Correll, Christoph U. .... 22, 328  
 Cortese, Bernadette M. .... 251, 272  
 Coryell, William H. .... 51  
 Cottler, Linda B. .... 190  
 Cournos, Francine ..... 343  
 Covino, Jennifer ..... 73  
 Cox, John L. .... 372  
 Coyle, Jr., Joseph T. .... 164  
 Cozza, Stephen J. .... 277  
 Creal, Margaret ..... 314  
 Crits-Christoph, Paul ..... 248  
 Crofford, Leslie J. .... 16  
 Croft, Harry A. .... 107  
 Cronkite, Ruth C. .... 92  
 Crosby, Ross D. .... 209  
 Crowley, Brian ..... 243  
 Crowley, Thomas J. .... 190  
 Crustolo, Anne Marie ..... 330  
 Cuijpers, Pim ..... 192  
 Cummings, Jeffrey L. .... 29, 30  
 Cusin, Cristina ..... 103
- D**
- Dahl, Ronald E. .... 149  
 D'Alli, Richard E. .... 355, 376  
 Dalton, Arthur ..... 167  
 Daly, Patricia A. .... 282  
 Dang, Kien T. .... 319, 335  
 Dannon, Pinhas N. .... 124  
 Danoff, Deborah ..... 233  
 Danovitch, Itai ..... 302  
 Davidson, Joyce E. .... 220  
 Davidson, Larry ..... 219  
 Davidson, Leah ..... 205  
 Davine, Jonathan S. .... 336

Dawson, Lee ..... 112  
 Day, Max ..... 333  
 Díaz-Martínez, Luis A. .... 78, 83, 122  
 Deas, Deborah ..... 232  
 DeBattista, Charles ..... 3  
 deBeus, Roger J. .... 270  
 Debipersad, Prashaant ..... 327  
 Deckersbach, Thilo ..... 88  
 Deecher, Darlene ..... 112  
 Deeg, Dorly ..... 192  
 Dekker, Jack ..... 152, 192  
 Dekker, Jack J. .... 152, 255  
 DelBello, Melissa P. .... 151  
 Delgado, Pedro L. .... 62, 169, 363  
 Dell, Mary Lynn ..... 260  
 Dell'Osso, Bernardo ..... 87  
 Demartinis, Nicholas ..... 112  
 Demidovich, Mark A. .... 291  
 Demitrack, Mark ..... 179  
 Denis, Sandra ..... 139  
 Densmore, Maria ..... 93  
 Derauf, D. Christopher ..... 197  
 Deva, Parameshvara ..... 372  
 Deva, Parameshvara P. .... 332  
 Devlin, Michael ..... 172  
 Devlin, Michael J. ... 100, 172, 173, 209  
 Devouche, Emmanuel ..... 110, 155  
 Dewan, Naakesh A. .... 270  
 Dhopesh, Vasant P. .... 341  
 Diamond, Ronald J. .... 219  
 Diaz, Francisco J. .... 122  
 Dick, Danielle M. .... 204, 205  
 Dickstein, Daniel G. .... 357  
 Dickstein, Leah ..... 357  
 Dickstein, Leah J. .... 314, 338, 343,  
 351, 359  
 Dickstein, Steven P. .... 357  
 Diller M.D., Lawrence H. .... 217  
 DiMiceli, Sue ..... 133  
 Ding, Yu-Shin ..... 17  
 Dirienzo, Rosalinda ..... 341  
 Diverty, Brent ..... 333  
 Diwadkar, Vaibhav ..... 108  
 Diwan, Shilpa P. .... 226  
 Dogra, Nisha ..... 337  
 Donahue, Rafe M. .... 104  
 Doraiswamy, P. Murali ..... 49, 359  
 Dossenbach, Martin ..... 72  
 Douaihy, Antoine B. .... 200, 344  
 Dove, Henry W. .... 69  
 Downey, Jennifer I. .... 353  
 Dragatsi, Dianna ..... 100  
 Drake, Jennifer E. .... 222  
 Drake, Robert ..... 163  
 Drapeau, Martin ..... 247  
 Drescher, Jack ..... 296, 301, 332  
 Dresner, Nehama ..... 312  
 Drost, Dick J. .... 93  
 Drury, Stacy S. .... 329  
 Druss, Benjamin G. .... 358  
 Dryden-Edwards, Roxanne ..... 293, 319

D'Souza, Russell F. .... 332, 360  
 Duane, Drake ..... 95  
 Dube, Sanjay ..... 292, 297  
 Duckworth M.D., Kenneth ..... 267  
 Dudgeon, Scott ..... 336  
 Duenas, Hector J. .... 89  
 Duffy, Farifteh F. .... 227  
 Dunlop, Boadie W. .... 47  
 Dunn, Laura B. .... 130  
 Dunner, David L. .... 12, 74  
 Dunnigan, Joanne ..... 338  
 Durruthy, Stephanie S. .... 300  
 Duvall, Loretta E. .... 364  
 Dwyer, Gregg ..... 343  
 Dyachkova, Yulia ..... 72

E

Earl, Craig Q. .... 71  
 Ebeling, Hanna ..... 102  
 Edenberg, Howard ..... 204, 205  
 Edenberg, Howard J. .... 204  
 Ednie, Kathryn J. .... 234  
 Edwards, Christopher ..... 297  
 Ehrhardt, Anke A. .... 363  
 Eisen, Jane L. .... 257  
 Eisenberg, Daniel ..... 224  
 Eisenberg, Esther ..... 229  
 Eisenberg, Leon ..... 169  
 Eist, Harold I. .... 243  
 Ekong, Juliana I. .... 339  
 Elbaz, Zeinab S. .... 72  
 Engel, Scott ..... 209  
 England, Mary Jane ..... 358  
 Entsuah, Richard ..... 112  
 Ereshefsky, Larry ..... 168  
 Erman, Milton ..... 98  
 Ernst, Thomas ..... 197  
 Espinoza, Randall T. .... 99  
 Eth, Spencer ..... 289, 294  
 Etu, Sarah ..... 173

F

Faison, Warachal E. .... 50, 288  
 Falissard, Bruno ..... 123  
 Fan, Alexander H. .... 11  
 Farabaugh, Amy ..... 95  
 Farabaugh, Amy H. .... 3  
 Faraone, Stephen V. .... 34, 45  
 Farchione, Tiffany R. .... 322  
 Farelo, Daniel ..... 122  
 Farvolden, Peter ..... 152  
 Faulkner, Larry R. .... 307, 326  
 Faull, Robert ..... 72, 109  
 Fava, Maurizio ..... 43, 63, 88, 95,  
 103, 104, 107, 112  
 Fawzy, Fawzy I. .... 134  
 Fazzio, Lydia O. O. .... 114  
 Fearon, Paul ..... 132  
 Feheley, Paul ..... 296  
 Feijen, Rudolf A. .... 262

Feldman, Howard ..... 29  
 Feldman, Theodore B. .... 300  
 Fennell, Leah A. .... 299  
 Fernandez-Mendoza, Julio ..... 136  
 Ferrando, Stephen J. .... 269  
 Fichera, Giuseppe P. .... 176  
 Fidler, Donald C. .... 343  
 Figueiredo, John M. de ..... 226  
 Filteau, Marie-Josée ..... 275  
 Findling, Robert L. .... 70  
 Fineberg, Naomi A. .... 245  
 Finkel, Sanford I. .... 23  
 First, Michael B. .... 301  
 Fischbach, Ruth ..... 280  
 Fischbein, Ellen R. .... 305  
 Fitz-Gerald, Mary Jo ..... 283  
 Flament, Martine ..... 213  
 Fleischhacker, Wolfgang W. .... 148  
 Fleming, Alison ..... 329  
 Flynn, Julianne ..... 300, 328  
 Foa, Edna B. .... 19, 160, 195  
 Fobair, Pat ..... 133  
 Fochtman, Laura J. .... 287  
 Fogg-Waberski, Joanna H. .... 98  
 Foley, Carmel ..... 22  
 Fonagy M.D., Peter ..... 349  
 Ford, Julian ..... 154  
 Forde, David R. .... 76  
 Forester, Brent P. .... 9  
 Foroud, Tatiana ..... 204, 205  
 Forstein, Marshall ..... 200, 288  
 Foulks, Edward F. .... 267  
 Fowler, Christopher ..... 248  
 Fowler, Joanna S. .... 17  
 Frances, Richard J. .... 156, 240, 340  
 Franco, Flavia S. .... 113  
 Frangou, Sophia ..... 56  
 Frank, Daniel ..... 248  
 Frank, Ellen ..... 11  
 Frank, Guido K.W. .... 208  
 Frank, Julia B. .... 84  
 Frankenburg, Frances R. .... 171  
 Frankle, W. Gordon ..... 14  
 Franko, Debra L. .... 209  
 Freedman, Robert ..... 230  
 Freeman, Marlene P. .... 39  
 Freinkel, Andrew J. .... 277  
 Freire, Rafael C. .... 113  
 Fried, Ronna ..... 34  
 Friehs, Gerhard ..... 211  
 Fries, Brant ..... 68  
 Friis, Svein ..... 198  
 Frinks, Leslie E. .... 342  
 Frommann, Nicole ..... 149  
 Fromson, John A. .... 286  
 Frye, Mark A. .... 187  
 Fuller-Thomson, Esme ..... 331  
 Fullilove, Mindy Thompson ..... 366  
 Fung, Freddy ..... 112  
 Fung, Kenneth P. .... 320  
 Fyer, Abby ..... 196

## G

- Gabbard, Glen O. . . . . 247, 263, 334,  
347, 349, 356
- Gaby, Lynne M. . . . . 77, 227
- Gaebel, Wolfgang . . . . . 148, 149, 273
- Gahunia, Harvinia . . . . . 315
- Galanter, Marc . . . . . 260, 340
- Gallagher, Dympna . . . . . 173
- Gallofin, Leo L. . . . . 309
- Galynker, Igor I. . . . . 218, 224
- Ganime, Peter D. . . . . 338
- Gao, Keming . . . . . 89
- Garbely, Joseph M. . . . . 323
- Garcia-Moreno, Dolores . . . . . 261
- Garrett, Michael . . . . . 325
- Garrett, Michael D. . . . . 310
- Garza, Daniel . . . . . 281, 326
- Gasquet, Isabelle . . . . . 123
- Gau, Susan Shur-Fen . . . . . 124
- Gaw, Albert C. . . . . 292, 364
- Gelenberg, Alan J. . . . . 287
- Geller, Barbara . . . . . 12, 376
- Geller, Jeffrey L. . . . . 358
- Gennaro, Karen G. . . . . 293, 297
- Genser, Sander G. . . . . 314
- Gentilello, Larry . . . . . 163
- George, Lindsey . . . . . 330
- George, Mark S. . . . . 345
- George, Tony P. . . . . 186, 231
- Gerber, Andrew J. . . . . 161, 162
- Germain, Christine . . . . . 139
- Ghaemi, S. Nassir . . . . . 20, 27, 306
- Giannaccini, Gino . . . . . 87
- Gianoli-Valente, Marina . . . . . 110, 155
- Gicquel, Ludovic A. . . . . 214
- Giese-Davis, Janine . . . . . 133
- Giggie, Marisa A. . . . . 300
- Gignac, Martin . . . . . 284
- Gilioli, Renato . . . . . 176
- Gill, Sudeep S. . . . . 117
- Gingrich, Jay A. . . . . 355
- Glaescher, Jan . . . . . 92
- Glas, Gerrit . . . . . 259
- Glasofer, Deborah . . . . . 173
- Glitz, Deborah . . . . . 251
- Glover, Helen M. . . . . 218
- Goethe, John W. . . . . 75, 81, 98, 118
- Goff, Donald C. . . . . 164
- Gogineni, R. Rao . . . . . 266, 354
- Goin, Marcia K. . . . . 332
- Gokler, Bahar . . . . . 126
- Gold, Ian . . . . . 215
- Gold, Liza H. . . . . 362
- Gold, Wayne L. . . . . 268
- Goldberg, Jeffrey . . . . . 334
- Goldberg, Joseph F. . . . . 72
- Goldfein, Juli A. . . . . 173
- Goldfinger, Stephen M. . . . . 267, 290, 310
- Goldman, Marina . . . . . 320
- Goldstein, Benjamin I. . . . . 187
- Goldstein, Rachel . . . . . 312
- Goldstein, Rise B. . . . . 238
- Gomez, John-Paul . . . . . 320
- Gonzales, Junius J. . . . . 66
- Goodman, Aviel . . . . . 214
- Goodman, Wayne K. . . . . 256
- Goodwin, Frederick K. . . . . 28, 55, 306
- Gordon, Edward . . . . . 286
- Gordon, Susan M. . . . . 357
- Gordy, Tracy R. . . . . 286, 320
- Gottlieb, Diane B. . . . . 315
- Gottlieb, Gary Lloyd . . . . . 358
- Gouch, Peter . . . . . 199
- Graap, Ken . . . . . 259
- Grabovac, Andrea D. . . . . 142
- Grabsch, Brenda . . . . . 133
- Grady-Weliky, Tana A. . . . . 237, 326
- Graignic-Philippe, Rozenn . . . . . 110, 155
- Grant, Bridget F. . . . . 146, 238, 239
- Grant, Jon E. . . . . 174
- Gratier, Maya . . . . . 155
- Graves, Michael C. . . . . 33
- Gray, Sheila H. . . . . 298
- Green, Melva I. . . . . 300
- Green, Michael . . . . . 37
- Greenberg, Benjamin D. . . . . 211
- Greenberg, Roger P. . . . . 221
- Greenfield, Shelly F. . . . . 64, 357
- Greenlee, Brian A. . . . . 284
- Greiner, Carl B. . . . . 234, 353
- Griffin, Dauda A. . . . . 290
- Griffith, James L. . . . . 77, 120, 227, 306, 322
- Grilo, Carlos M. . . . . 82
- Groleger, Urban . . . . . 72
- Grosjean, Bernadette . . . . . 80
- Grosjean, Bernadette M. . . . . 88, 120
- Gross, Lawrence S. . . . . 332
- Grossman, Linda S. . . . . 69, 72, 109
- Growdon, John . . . . . 95
- Grube, Beth A. . . . . 287
- Gruber, Staci A. . . . . 150
- Gruman, Cynthia . . . . . 126
- Gudmundson, O. . . . . 273
- Gudmundsson, S. . . . . 273
- Guduri, Sujata . . . . . 236
- Guelfi, Julien-Daniel . . . . . 214
- Gunderson, John G. . . . . 172, 263
- Gur, Raquel E. . . . . 363
- Gureje, Oye . . . . . 136
- Gutheil, Thomas G. . . . . 246, 303, 333, 347
- Gutkovich, Zinoviy . . . . . 22
- Halfon, Olivier . . . . . 213
- Hall, Heather M. . . . . 281
- Hall, Lachesha L. . . . . 302
- Hall, Molly J. . . . . 300
- Haller, Ellen . . . . . 254
- Halliday, Basil D. . . . . 297
- Halmi, Katherine A. . . . . 208, 209
- Halper, James P. . . . . 333
- Halpern, Abraham L. . . . . 157
- Hamarman, Stephanie . . . . . 293
- Hamilton, Tom . . . . . 284
- Hammerness, Paul G. . . . . 18
- Hammerschlag, Richard . . . . . 119
- Hanin, Edward . . . . . 307
- Haning III, William F. . . . . 197, 284
- Hanley, Tyrone . . . . . 86
- Hansen, Thomas E. . . . . 304
- Harding, Kelli J.R. . . . . 314
- Harding, Richard K. . . . . 342
- Hardy, Daniel W. . . . . 298
- Harker, Roy . . . . . 332
- Harris, Gregory G. . . . . 292
- Harrow, Martin . . . . . 71, 109
- Hart, Dionne A. . . . . 325
- Hartman, David E. . . . . 326
- Hartmann, Lawrence . . . . . 314
- Harvey, Philip D. . . . . 15, 46, 138
- Hasin, Deborah S. . . . . 146, 191, 239
- Hassan, Nael . . . . . 131
- Hatters-Friedman, Susan J. . . . . 309, 323
- Hauser, Peter . . . . . 269
- Hawryluck, Laura . . . . . 268
- Heilig, Markus . . . . . 251, 368
- Heiman, Gary . . . . . 147
- Heiman, Julia R. . . . . 107
- Helfand, Stacia . . . . . 100
- Hellerstein, David J. . . . . 100
- Helzer, John E. . . . . 159
- Hen, Rene . . . . . 196
- Henderson, David C. . . . . 244
- Hendriksen, Mariëlle . . . . . 152
- Hennessy, Grace . . . . . 64
- Henning, Sass . . . . . 297
- Henry, Joseph . . . . . 86
- Hensley, Paula . . . . . 267
- Hensley, Paula L. . . . . 107
- Hepburn, Brian M. . . . . 299
- Hermann, Richard C. . . . . 284, 327
- Heru, Alison M. . . . . 295
- Herzog, Alfred . . . . . 234
- Herzog, David B. . . . . 209
- Hesselbrock, Victor . . . . . 205
- Hettinga, Nicolaas F. . . . . 254
- Heymsfield, Steven B. . . . . 173
- Hickling, Frederick W. . . . . 137
- Higgins, Jr., Napoleon B. . . . . 286, 302
- Hill, Darryl B. . . . . 86, 116
- Hilty, Donald M. . . . . 314
- Hines, John K. . . . . 291
- Hingson, Ralph . . . . . 162
- Hirdes, John P. . . . . 68, 333

## H

Hirsch, Alan R. . . . . 326  
 Hirschfeld, Robert M. . . . . 8  
 Hirschfeld, Robert M. A. . . . . 74, 75  
 Hirschfeld, Robert M.A. . . . . 55, 89, 287  
 Hirshbein, Laura D. . . . . 299  
 Hirshberg, Laurence M. . . . . 271  
 Hoffman, Ellen J. . . . . 359  
 Hoge, Charles W. . . . . 276  
 Hoge, Steven K. . . . . 247, 303  
 Hollander, Eric . . . . . 50  
 Hollar, Milton C. . . . . 365  
 Hollifield, Michael . . . . . 119  
 Hollifield, Michael A. . . . . 261, 301  
 Hollingshead, Suzanne . . . . . 311  
 Hollins, Sheila . . . . . 297  
 Hollon, Steven D. . . . . 161  
 Hoos, David . . . . . 128  
 Horne, Rob . . . . . 90, 125  
 Hostetter, Abram M. . . . . 298, 307  
 Houghtalen, Rory P. . . . . 342  
 Howells, Valerie L. . . . . 68  
 Hsiung, Robert C. . . . . 308  
 Huang, Suena W. . . . . 322  
 Huang, William . . . . . 313  
 Huang, Yu-Shu . . . . . 124  
 Hudziak, James J. . . . . 53, 159  
 Huebner, Robert . . . . . 328  
 Hughes, Michael . . . . . 312  
 Hull, Steven . . . . . 124  
 Huppert, Jonathan D. . . . . 195  
 Huremovic, Damir . . . . . 310  
 Hurford, Matthew O. . . . . 293  
 Hurley, Robin A. . . . . 264  
 Husain, Nisba F. . . . . 299  
 Husain, Syed A. . . . . 330  
 Hwang, Michael Y. . . . . 138, 139

I

Inderbitzin, Lawrence B. . . . . 322  
 Ingenhoven, Theo . . . . . 153  
 Ingthorsdottir, A. . . . . 273  
 Ioannou, Constantine . . . . . 326  
 Iosifescu, Dan V. . . . . 88, 317  
 Isbey, JoAnne . . . . . 357  
 Ishak, Waguih W. . . . . 316, 322  
 Ismail, M. Saleem . . . . . 30  
 Isohanni, Matti K. 93, 101, 110, 118, 122  
 Israel, Joshua A. . . . . 3  
 IV, Bernard A. Fischer . . . . . 332  
 IV, Joshua T. Thornhill . . . . . 300

J

Jackson, Juanita . . . . . 99  
 Jacob, Suma . . . . . 300  
 Jacobsen, Frederick M. . . . . 281  
 Jacobsen, Leslie K. . . . . 150  
 Jacobson, Sandra A. . . . . 168  
 Jaffe, Ari B. . . . . 105  
 Jain, Shaily . . . . . 40  
 Jang, Hee-Jeong . . . . . 101

Jang, Kerry L. . . . . 181  
 Janicak, Philip G. . . . . 180  
 Januszewski, Andrea . . . . . 171  
 Javed, Afzal . . . . . 332, 360  
 Javitt, Daniel . . . . . 165  
 Javitt, Daniel C. . . . . 52, 202  
 Jayaram, Geetha . . . . . 234, 359  
 Jeammet, Philippe . . . . . 213, 214  
 Jeste, Dilip V. . . . . 49, 130, 367  
 Jha, Aruna . . . . . 286  
 Jhee, Stanford . . . . . 168  
 Jiang, John G. . . . . 71  
 Jicha, Gregory A. . . . . 29  
 Jobe, Thomas H. . . . . 71  
 Johannesen, Jan O. . . . . 198  
 Johnson, Alisa . . . . . 116  
 Johnson, Bankole . . . . . 369  
 Jokelainen, Jari . . . . . 110  
 Jones, Kevin A. . . . . 204  
 Jones, Peter B. . . . . 101, 224  
 Jorge, Ricardo E. . . . . 210  
 Jorgenson, Linda M. . . . . 322  
 Josephson, Allan M. . . . . 260, 296  
 Joukamaa, Matti . . . . . 110  
 Joy, Javed A. . . . . 323  
 Juthani, Nalini V. . . . . 299

K

Kaddurah-Daouk, Rima F. . . . . 359  
 Kahn, René S. . . . . 148  
 Kajdasz, Daniel K. . . . . 81  
 Kalin, Ned H. . . . . 19, 23  
 Kane, John M. . . . . 21, 67  
 Kantojarvi, Liisa . . . . . 110  
 Kantor, Edward M. . . . . 283  
 Kaplan, Allan S. . . . . 172  
 Kaplan, Gary B. . . . . 230  
 Kaplan, Kalman J. . . . . 72  
 Kapur, Shitij . . . . . 21  
 Karam, Elie G. . . . . 196  
 Karlan, Pamela . . . . . 201  
 Karlawish, Jason . . . . . 201  
 Karnik, Niranjan . . . . . 285  
 Karnik, Niranjan S. . . . . 83, 299, 337  
 Kassirer M.D., Jerome P. . . . . 217  
 Kates, Nick . . . . . 330, 336  
 Katon, Wayne J. . . . . 40, 182  
 Katona, Cornelius . . . . . 6  
 Katz, Ira R. . . . . 81  
 Katz, Nathaniel P. . . . . 358  
 Katzelnick, David J. . . . . 227  
 Kaufman, Joan . . . . . 329  
 Kaufman, Molly R. . . . . 338  
 Kay, Jerald . . . . . 310, 356  
 Kaye, Walter H. . . . . 208  
 Keashly, Loreleigh . . . . . 176  
 Keck, Paul E. . . . . 350  
 Keefe, Richard S.E. . . . . 32  
 Keehan, Monique . . . . . 130  
 Keitner, Gabor I. . . . . 117  
 Keller, Martin B. . . . . 25, 36

Kellett, Kathy . . . . . 126  
 Kelly, Jr., Robert E. . . . . 217  
 Kendler, Kenneth S. . . . . 266  
 Kennedy, James A. . . . . 76  
 Kennedy, Robert S. . . . . 270  
 Kennedy, Sidney H. . . . . 166, 213  
 Kennedy, Susan E. . . . . 236  
 Kent, Justine M. . . . . 35  
 Kerr-Correa, Florence . . . . . 89  
 Kertzner, Robert M. . . . . 254  
 Kessler, Ronald . . . . . 360  
 Kestenbaum, Clarice J. . . . . 306  
 Ketter, Terence A. . . . . 27, 38, 88  
 Khan, Arif . . . . . 359  
 Kibour, Yeshashwork . . . . . 137  
 Kiley, Kevin C. . . . . 374  
 Kiluvia, Moddy H. . . . . 282  
 Kim, Chan-Hyung . . . . . 101  
 Kim, In-Young . . . . . 101  
 Kim, Jae-Jin . . . . . 101  
 Kim, Jin-Hun . . . . . 100  
 Kim, Scott Y. . . . . 294  
 Kim, Sun I. . . . . 101  
 Kimaryo, Scholastica . . . . . 183  
 Kin, Mien-Kwong Ng Ying . . . . . 108  
 King, Jean . . . . . 186  
 King, Julie . . . . . 99  
 Kingdon, David G. . . . . 102, 306, 311  
 King-Hele, Sarah A. . . . . 105  
 Kirch, Darrell G. . . . . 326  
 Kirsch, Debra F. . . . . 293  
 Kisely, Stephen R. . . . . 132  
 Kishore, Anita R. . . . . 331  
 Kissane, David W. . . . . 133  
 Kleber, Herbert D. . . . . 195, 294  
 Klein, Marcia . . . . . 139  
 Klein, Tara . . . . . 311  
 Knickle, Kerry J. . . . . 342  
 Knutson, James A. . . . . 71  
 Kocsis, James H. . . . . 161  
 Kogan, Richard . . . . . 357  
 Kohn, Robert . . . . . 261, 301  
 Kolk, Bessel A. Van Der . . . . . 154, 216  
 Kolla, Nathan J. . . . . 171  
 Kollins, Scott . . . . . 54  
 Kolodner, George . . . . . 294  
 Koob, George F. . . . . 252  
 Kool, Simone . . . . . 152  
 Koopman, Cheryl . . . . . 133, 277  
 Koponen, Hannu J. . . . . 100, 122  
 Korff, Michael Von . . . . . 182  
 Koskinen, Johanna . . . . . 122  
 Kosten, Thomas R. . . . . 241  
 Kowatch, Robert A. . . . . 376  
 Koyanagi, Chad Y. . . . . 284  
 Krack, Paul . . . . . 324  
 Kraemer, Helena C. . . . . 5, 133  
 Kramer, John . . . . . 205  
 Kramer, Milton . . . . . 334  
 Kranzler, Henry R. . . . . 366  
 Kratochvil, Christopher J. . . . . 53



- Kraus, Louis J. . . . . 285  
Kring, Brunhild . . . . . 334  
Krishnan, K. Ranga R. . . . . 26, 65  
Krishnan, Ranga . . . . . 350  
Krupa, Terry . . . . . 218  
Kryger, Meir . . . . . 23  
Krystal, John H. . . . . 46  
Ku, Jeonghun . . . . . 101  
Kubu, Cynthia . . . . . 211  
Kudler, Harold . . . . . 189  
Kudler, Harold S. . . . . 264  
Kuechler, Thomas . . . . . 133  
Kunkel, Elisabeth J.S. . . . . 320  
Kuo, Jack . . . . . 313  
Kuperman, Samuel . . . . . 205  
Kupfer, David J. . . . . 5, 345, 351  
Kurdoglu, Selvet . . . . . 126  
Kurien, Mary . . . . . 323  
Kusgozoglu, Tulin . . . . . 126  
Kushida, Clete A. . . . . 61  
Kyomen, Helen H. . . . . 143
- L**
- Laine, Pekka . . . . . 122  
Lamb, H. Richard . . . . . 284  
Lamdan, Ruth M. . . . . 323  
Lammers, Jeffrey M. . . . . 328  
Lancee, William . . . . . 79  
Lancon, Christophe . . . . . 141  
Landa, Yulia . . . . . 306  
Lang, Anthony E. . . . . 324  
Lang, François . . . . . 213  
Langlieb, Alan . . . . . 290  
Lankford, Alan . . . . . 124  
Larsen, Tor K. . . . . 198  
Laruelle, Marc . . . . . 352  
Lau, Adam . . . . . 217  
Lauronen, Erika . . . . . 92, 102, 122  
Lauterbach, Edward C. . . . . 32  
Lauterbach, Margo D. . . . . 300  
Law, David P. . . . . 139  
Lawrence, Leslie E. . . . . 374  
Lawson, William . . . . . 301  
Lawson, William B. . . . . 9, 307  
Lazare, Aaron . . . . . 358  
Lazarus, Arthur . . . . . 336  
Lazarus, Arthur L. . . . . 103, 299  
Lazarus, Jeremy A. . . . . 322  
Leary, Kimberlyn . . . . . 334  
Leblanc, Gerard . . . . . 275  
Lecours, Serge . . . . . 247  
Lederer, Benjamin D. . . . . 328  
Lee, Jr., James E. . . . . 331  
Lee, Joel T. . . . . 13  
Lee, Kibeom . . . . . 181  
Lee, Matthias K. . . . . 23  
Lee, Phil . . . . . 124  
Leff, Steve . . . . . 249  
Leibenluft, Ellen . . . . . 376  
Leigh, Hoyle . . . . . 77, 327  
LeMelle, Stephanie . . . . . 339  
Lemire, Francine L. . . . . 336  
Lenze, Eric J. . . . . 6, 54  
Lenzenweger, Mark F. . . . . 172  
Leon, Jose de . . . . . 122  
Leonard, Sherry . . . . . 185  
Lerman, Caryn . . . . . 207  
Lerro, Marc . . . . . 209  
Lesage, Alain D. . . . . 140  
Leszcz, Modyn . . . . . 79, 133  
Levenson, Alan I. . . . . 305  
Leventhal, Liza . . . . . 112  
Levin, Frances R. . . . . 194, 340  
Levine, Jerome M. . . . . 105  
Levine, John B. . . . . 222, 223  
Levine, Stephen B. . . . . 356  
Levounis, Petros . . . . . 281, 282  
Levy M.D., Kenneth M. . . . . 349  
Levy, Kenneth N. . . . . 172  
Lewis, Bradley E. . . . . 215  
Li, Eric C. . . . . 286  
Li, T-K . . . . . 365  
Lian, Nityamo . . . . . 119  
Lieberman, Robert P. . . . . 140  
Lidz, Charles W. . . . . 129  
Lieberman, Jeffrey . . . . . 350  
Lieberman, Jeffrey A. . . . . 31, 52, 351, 352  
Light, Gregory A. . . . . 202  
Likhitsathian, Surinporn . . . . . 94  
Lin, Chieh-Hsin . . . . . 80  
Lin, Ching-Hua . . . . . 80  
Lin, Elizabeth H.B. . . . . 182  
Lindeman, Sari . . . . . 100  
Lindenmayer, Jean-Pierre, . . . . . 145  
Links, Paul S. . . . . 171, 185  
Lipsitt, Don R. . . . . 327  
Lisanby, Sarah H. . . . . 168  
Liu, Linxu . . . . . 173  
Livesley, John . . . . . 181, 236  
Lo, Ted . . . . . 320  
Loas, Gwenole . . . . . 214  
Loas, Gwenolé . . . . . 214  
Loeb, Mark . . . . . 268  
Lofchy, Jodi S. . . . . 319  
Lopes, Fabiana L. . . . . 113  
Lopez, Frank A. . . . . 70  
Lopez, Lina M. . . . . 310  
López-Ibor, Jr., Juan J. . . . . 113  
Lopez-Ibor, Jr., Juan J. . . . . 297  
Louie, Marie . . . . . 268  
Love, Anthony . . . . . 133  
Lowry, Amanda J. . . . . 72  
Loza, Nasser F. . . . . 131  
Lozano, Andres M. . . . . 324  
Lu, Francis G. . . . . 250, 281, 288, 306  
Luby, Joan L. . . . . 296  
Lugo, Raquel . . . . . 299  
Lukasiewicz, Michael . . . . . 123  
Luna, Beatriz . . . . . 150  
Luo, John . . . . . 270  
Lusskin, Shari . . . . . 305, 355  
Luthra, Rohini . . . . . 223  
Lyketsos, Constantine . . . . . 30  
Lynn, David J. . . . . 79, 299, 320
- M**
- Mach, Michele . . . . . 330  
Machado, Andre . . . . . 211  
Machado-Romero, Carlos A. . . . . 78  
Mack, Avram H. . . . . 290, 299, 340  
MacQueen, Glenda M. . . . . 212  
Madianos, Michael G. . . . . 132  
Madras, Bertha K. . . . . 17  
Maki, Pirjo H. . . . . 102, 110, 118  
Malaspina, Dolores . . . . . 51  
Malaya, Liliya . . . . . 224  
Malhotra, Anil K. . . . . 9, 22  
Mallinckrodt, Craig H. . . . . 73  
Mallios, Romna . . . . . 77  
Malloy, Edward . . . . . 368  
Malmquist, Carl P.P. . . . . 322  
Malone, Jr., Donald A. . . . . 211, 212  
Maltsberger, John T. . . . . 262  
Manchanda, Rahul . . . . . 93  
Manchego, Claudia . . . . . 78  
Mancini, Catherine . . . . . 114  
Manevitz, Alan Z.A. . . . . 333  
Mangurian, Christina V. . . . . 283, 339  
Manley, Myrl R.S. . . . . 232  
Mann, Karl F. . . . . 367  
Manring, John . . . . . 160  
Manschreck, Theo C. . . . . 317  
Manu, Peter . . . . . 328, 337  
Marangell, Lauren B. . . . . 59  
Marazziti, Donatella . . . . . 87  
March, John S. . . . . 116  
Marcus, Eric R. . . . . 206, 306  
Marder, Stephen R. . . . . 37, 66, 149  
Marin, Humberto . . . . . 170, 266  
Markov, Dimitri D. . . . . 320, 354  
Marneros, Andreas . . . . . 224  
Martello, David . . . . . 105  
Martin, Janet A. . . . . 305  
Martinez, James M. . . . . 59  
Martínez, Adriana M. . . . . 78  
Martínez-Mantilla, Jorge A. . . . . 83  
Marx, Christine E. . . . . 237, 264  
Masand, Prakash S. . . . . 54, 57  
Masi, Gabriele . . . . . 91  
Mason, Barbara J. . . . . 253, 367  
Mathalon, Daniel H. . . . . 202  
Matharu, Yogi . . . . . 321  
Mathew, Sanjay T. . . . . 24  
Mathews, Maju . . . . . 219  
Mathews, Travis D. . . . . 281  
Matorin, Anu A. . . . . 310  
Matthews, Annette M. . . . . 269  
Matthews-Juarez, Patricia . . . . . 229  
Mattos, Paulo E. . . . . 128  
Maunder, Robert . . . . . 79  
May, Alexis M. . . . . 118  
May, J. Christopher . . . . . 208  
Mayer, Laurel . . . . . 173





Redelmeier, Donald	375	Roose, Steven P.	161, 162, 210	Schlesinger, Abigail B.	314
Rediger, Jeffrey D.	278	Roozegar, Mozhddeh	68	Schmidt, Jr., Chester W.	286, 320
Reeves, James J.	276, 298	Rosario, Jr., Salvador R. del	340	Schneider, Lon S.	49
Regent, Nicole	312	Rosen, Cherise	69, 109	Schneider, Richard D.	314
Regier, Darrel A.	227, 357	Rosenbaum, Jerrold F.	73	Schoener, Gary R.	321
Reich, D. Bradford	171	Rosenberg, Russell	97	Schoevers, Robert A.	152, 192
Reich, James H.	235	Rosenbluth, Michael B.	213	Schroeder, Katrin	92
Reich, Wendy	204	Rosenfield, Paul J.	206	Schuckit, Marc A.	204
Reid, William H.	303	Rosenheck, Robert A.	15, 32	Schulz, S. Charles	174
Reifler, Burton V.	307, 329	Rosenzweig-Lipson, Sharon	112	Schupf, Nicole	167
Reimherr, Frederick W.	74	Roskes, Erik J.	284	Schwartz, Bruce J.	284
Reinblatt, Shauna P.	336	Ross, Heather	370	Schwartz, George	108
Reisberg, Barry	175	Ross, Stephen	242	Schwartz, Joseph M.	336
Renner, Jr., John A.	294	Rosso, Isabelle M.	150	Schwarzkopf, Steven B.	203
Renshaw, Perry F.	88	Rostain, Anthony L.	313	Scott, Marcia	274
Resendez, Cynthia I.	288	Rothe, Eugenio M.	301	Scott, Nakia G.	297, 299
Reus, Victor I.	329	Rothenberg, Albert	115	Scully, Jr., James H.	307
Reyes, Raymond M.	343	Rothschild, Barbara B.	130	Sederer, Lloyd I.	228
Reynaud, Michel	123	Rothstein, David A.	69, 84	Seidler, Aura R.	338
Reynolds III, Charles F.	55	Rowland, Melisa D.	291	Seidman, Larry J.	17
Rezai, Ali R.	211	Roy-Byrne, Peter P.	40	Seitz, Dallas P.	117
Rho, Yanni C.	288	Rubio, Gabriel	113	Semeniuk, Trent	247
Riba, Michelle B.	314, 320, 327, 338	Rubio-Stipek, Maritza	77	Sermans-Ward, Lydia	294
Richards, Lawrence K.	314	Rueda-Jaimes, German E.	122	Shack, Jonathan G.	323
Richeimer, Steven H.	321	Rueda-Sánchez, Mauricio	122	Shaffer, David	359
Richelson, Elliott	180	Ruelaz, Alicia R.	13, 311	Shah, Manoj	22
Richman, Judith A.	177	Ruiz, Pedro	290, 307, 360	Shapiro, Colin M.	183
Ridler, Khanum	101	Rundell, James Ray R.	360	Shapiro, Edward R.	324, 329
Rigaud, Marie-Claude	274	Rush, A. John	43, 65, 345	Sharfstein, Steven S.	372, 374
Ring, Huijun Z.	207	Rutherford, Bret R.	162, 246	Shariat, Sayed Vahid	96
Rinne, Thomas	153	Ryan, Christine E.	117	Sharkey, John	310
Rittberg, Barry	13			Sharp, Carla	85
Ritvo, Eva C.	312	S		Shaw, Jon A.	312
Rivera, Jose L. Gonzalez de	85	Saari, Kaisa	100	Shear, M. Katherine	266
Rivlin, Claire P.	337	Saathoff, Gregory B.	158	Shear, Shoshana L.	338
Rizq, Diah	121	Sabri, Sufyan	121	Sheehan, David V.	39, 350
Rizzo, Albert A.	258	Sachs, Gary S.	4, 88	Sheikh, Sohail A.	13
Robbins, Trevor	47	Sadee, Wolfgang	207	Sheridan, Robert L.	223
Robbins, Trevor W.	245	Saeed, Sy A.	299	Shields, Peter	207
Roberto, Christina	173	Safer, Daniel J.	218	Shihabuddin, Lina S.	289
Roberts, Esther P.	300, 359	Sahakian, Barbara	245	Shiner, Rebecca L.	181
Roberts, Laura W.	294	Sailasuta, Napapon	197	Shinfuku, Naotaka	360
Robertson, Brian M.	248	Sakinofsky, Isaac	185	Shipler, David K.	364
Robinowitz, Carolyn B.	297, 307, 326	Salary, Cheryl Y.	299	Shivers, Tony B.	321
Robins, Lee N.	159	Salomon, Anat	332	Shrikhande, Aditi M.	282
Robinson, Alexandra	338	Salzer, Alicia J.	332	Sica, Kristin	116
Robinson, Delbert G.	52	Salzman, Carl	49	Siegel, Glenn N.	327
Robinson, Gail E.	229, 230, 290, 321, 359	Sanchez, Francis M.	292	Siegel, Richard L.	107, 108
Robinson, Michael J.	73	Sanchez, Manuel O.	89	Siever, Larry J.	236
Robinson, Rebecca L.	92	Sanders M.D., Hans	255	Silk, Kenneth R.	171, 236
Robinson, Robert G.	210	Sandfort, Theodorus G.M.	301	Silva, Susan	116
Robison, Julie	126	Sano, Mary	167, 175	Silver, Ivan	303
Roca, Robert P.	295	Sartorius, Norman	357	Silveri, Marisa M.	150
Rodriguez-Abuin, Manuel J.	85	Satcher, David	18	Silverman, Joel J.	322
Rodriguez-Muñoz, Alfredo	136	Saxe, Glenn	223	Silverman, Morton M.	278
Rogoff, Jerome	300	Saxe, Glenn N.	223	Silverman, Wayne	167
Rohsenow, Damaris J.	230	Saxena, Sanjaya	257	Simon, Gregory E.	182
Romine, Ann	174	Scasta, David L.	332	Simons, Anne	116
Rondon, Marta B.	359, 372	Schatzberg, Alan F.	26, 59, 74, 350	Simonsen, Erik	198
Ronningstam, Elsa F.	262	Scheiber, Stephen C.	307, 329	Simpson, Sherri M.	334
		Scher, Christine D.	76	Singareddy, Ravi K.	135, 250, 251

- Singh, Bruce ..... 360  
Singh, Bruce S. .... 330  
Sinha, Priti ..... 278  
Skodol II, Andrew E. .... 347  
Slaby, Andrew E. .... 332  
Small, Gary W. .... 175  
Smit, Filip ..... 192  
Smit, Filip E. .... 192  
Smith, Graeme C. .... 133  
Smith, Mary K. .... 301  
Smith, Trevor F. .... 333  
Sneed, Joel R. .... 210  
Soloff, Paul H. .... 108  
Solomon, David A. .... 117  
Sommer, Tobias ..... 92  
Sonawalla, Shamsah B. .... 244  
Sood, Aradhana B. .... 310  
Soong, Wei-Tsuen ..... 124  
Sorel, Eliot ..... 297  
Sorrentino, Renee M. .... 309, 316, 323  
Sowers, Wesley E. .... 215  
Soygur, Haldun ..... 87, 126  
Speanburg, Stefanie ..... 248  
Speranza, Mario ..... 214  
Spiegel, David ..... 133, 358  
Spitz, Deborah ..... 300  
Spitz, Henry I. .... 338  
Spritz, Melanie E. .... 343  
Srabstein, Jorge C. .... 177  
Srinivasan, Krishnamachari ..... 362  
Srinivasaraghavan, Jagannathan ..... 290,  
293, 298, 330, 332  
Srisurapanont, Mani ..... 94  
Stabinsky, Susan ..... 353  
Stahl, Stephen M. .... 20  
Stanford, Sharon B. .... 16  
Stankowski, Joy E. .... 309, 323  
Stanley, Barbara H. .... 280  
Stanley, Melinda ..... 220  
Steenbarger, Brett ..... 221  
Steenfeldt-Foss, Otto ..... 372  
Steffens, David C. .... 24, 210  
Steiger, Howard ..... 108  
Stein, Bradley D. .... 291  
Stein, Murray B. .... 19, 76, 287  
Steiner, Hans ..... 83, 337  
Stenger, V. Andrew ..... 197  
Stern, Harriet C. .... 294  
Stewart, Altha J. .... 134, 366  
Stewart, Deborah C. .... 77  
Stewart, Donna E. .... 62, 355  
Stewart, Jonathan T. .... 341  
Stewart, Jonathan W. .... 103  
Stewart, Stephanie M. .... 305, 311, 322  
Stinson, Frederick S. .... 146, 239  
Stoddard, Jr., Frederick J. .... 223  
Stolar, Andrea G. .... 274  
Stone, Alan A. .... 374  
Stone, Michael H. .... 263  
Stotland, Nada L. .... 236  
Stovall-McClough, Chase ..... 216  
Stowe, Zachary N. .... 355  
Stowell, Keith R. .... 344  
Strain, Eric C. .... 294, 358  
Strauss, Jennifer L. .... 156, 189  
Streltzer, Jon M. .... 327  
Strik, Werner ..... 245  
Stroup, Thomas S. .... 31, 352  
Stuart, Scott P. .... 161, 221  
Stubbe, Dorothy E. .... 331  
Stuck, Craig A. .... 141, 342  
Stunkard, Albert J. .... 209  
Styra, Rima ..... 268  
Suarez, Raymond E. .... 328, 337  
Sudak, Donna M. .... 289, 318  
Sugden, Steve ..... 293  
Sullivan, Patrick F. .... 352  
Summers, Alan L. .... 304  
Sumner, Calvin R. .... 332  
Sunderland, Trey ..... 175, 357  
Surman, Craig B. .... 45  
Susser, Ezra S. .... 224  
Suzuki, David T. .... 362  
Sverd, Jeffrey ..... 115  
Swanson, James M. .... 17  
Swartz, Conrad M. .... 99  
Swartz, Holly A. .... 4  
Swartz, Marnina ..... 94  
Swartz, Marvin S. .... 65  
Swift, Robert M. .... 230, 241, 318  
Swindle, Ralph W. .... 92  
Sysko, Robyn ..... 173  
Szarek, Bonnie L. .... 81, 98  
Szarfman, Ana ..... 359  
Szigethy, Eva ..... 357  
Szigethy, Eva M. .... 331  
Szulc, Agata ..... 72
- T**
- Taanila, Anja ..... 102  
Taber, Katherine H. .... 264  
Tahilani, Kavita K. .... 209  
Taintor, Zebulon ..... 300  
Taintor, Zebulon C. .... 156, 307  
Tammaing, Carol A. .... 10, 357  
Tariot, Pierre N. .... 30  
Taylor, Robyn ..... 258  
Taylor, Warren D. .... 54  
Teicher, Martin H. .... 153  
Tellier, Claude ..... 108  
Temple, Scott ..... 306  
Tesar, George E. .... 211  
Thase, Michael E. .... 35, 44, 161, 162  
Th  berge, Jean ..... 93  
Thibodeau, Nicole ..... 275  
Thielman, Samuel B. .... 259  
Thombs, Brett D. .... 76  
Thompson, Carolyn ..... 111  
Thongdy, Tavi ..... 109  
Tidey, Jennifer W. .... 230  
Tilburg, Willem Van ..... 192  
Tillman, Jane G. .... 329  
Timko, Christine ..... 91  
Titus-Villedrouin, Mary ..... 136  
Tomoda, Akemi ..... 153  
Toneatto, Tony ..... 152  
Tong, Lowell D. .... 233, 300  
Toni, Cristina ..... 91  
Tracy, Martin G. .... 305, 318  
Treisman, Glenn J. .... 43  
Trinh, Nhi-Ha T. .... 288  
Trinidad, Anton C. .... 147  
Triplet, Patrick T. .... 233  
Trivedi, Harsh K. .... 321  
Trivedi, Madhukar H. .... 26, 41, 228  
Tsai, Guochuan E. .... 145  
Tsai, Kuan-Yi ..... 97  
Tschan, Werner ..... 230, 321  
Tseng, Li-Jung ..... 108  
Tucker, Terrie ..... 333  
Tuerk, Catherine ..... 86  
Tuinebreijer, Willem C. .... 262  
Tulving, Endel ..... 169  
Turecki, Gustavo ..... 184  
Turhan, Levent ..... 87  
Turkington, Douglas ..... 102, 311, 325, 337  
Turnbow, John M. .... 71  
Twemlow, Stuart W. .... 334  
Tyndale, Rachel ..... 207  
Tyrka, Audrey R. .... 25
- U**
- Uhde, Thomas W. .... 135  
Upshall, Phil ..... 336  
Urbaitis, John C. .... 243, 336  
Ursano, Robert J. .... 360, 361
- V**
- Vaglum, Per ..... 198  
Vahia, Ipsit ..... 225, 226  
Valenca, Alexandre M. .... 113  
Valente, Elizabeth ..... 153  
Valmaggia M.D., Angel ..... 188  
Van, Henricus L. .... 152  
Vanderpool, Donna ..... 318  
Vangel, Mark ..... 91  
Varma, Vijoy ..... 224  
Vasa, Monisha R. .... 282, 309, 322  
Veijola, Juha M. .... 93, 101, 102, 110  
Vela-Bueno, Antonio ..... 136  
Velligan, Dawn I. .... 48  
Vennis, Jean-Luc ..... 213  
Vergare, Michael J. .... 320  
Vgontzas, Alexandros ..... 135  
Victor, Lisa ..... 321  
Victoroff, Jeff ..... 158  
Vieta, Eduard ..... 58, 306  
Vijayakumar, Lakshmi ..... 330  
Vince, Bradley D. .... 124  
Vito, Jose P. .... 281, 283, 321  
Volkow, Nora D. .... 17, 358  
Volpp, Serena Y. .... 302

Voon, Valerie ..... 324  
 Vorono, Sienna ..... 112

W

Waddell, Andrea ..... 317  
 Waddell, Andrea E. .... 319, 335  
 Waggoner, William ..... 297  
 Wagner, Angela ..... 208  
 Wagner, Karen D. .... 8  
 Wahlstrom, Jr., Carl M. .... 326  
 Wain, Harold J. .... 276  
 Wainberg, Milton L. .... 200, 288  
 Wainscott, Cynthia ..... 358  
 Waldbaum, Marjorie E. .... 282  
 Waldman, Amy ..... 158  
 Walick, David J. .... 328  
 Walker, Edward A. .... 76  
 Walker, Sandra C. .... 331, 334  
 Walsh, B. Timothy ..... 172, 173  
 Walsh, Elizabeth ..... 187  
 Wang, Gene-Jack ..... 17  
 Wang, Jack ..... 173  
 Wapenyi, Khakasa H. .... 288  
 Warner, Teddy ..... 119  
 Warnock, Julia K. .... 107  
 Warshaw, Carole ..... 372  
 Washam, Col. Terry C. .... 190  
 Washington, LaShondra T. .... 301  
 Waterman, G. Scott ..... 159, 215  
 Watson, Darryl P. .... 70  
 Watson, David ..... 235  
 Webb, Roger T. .... 105  
 Weerasekera, Priyanthy ..... 160  
 Wei, Gwo-Jen ..... 80  
 Weiden, Michael ..... 42  
 Weiden, Peter J. .... 42, 306  
 Weinberger, Daniel R. .... 46, 59  
 Weine, Stevan M. .... 158  
 Weiner, Elyse D. .... 309  
 Weinstein, Henry C. .... 284  
 Weisberg, Risa B. .... 18  
 Weiss, Roger D. .... 240, 318  
 Weisser, Lydia E. .... 299  
 Wells, Kenneth B. .... 362  
 Welsh, Christopher J. .... 283  
 Wernert III, John J. .... 297  
 Wesnes, Keith ..... 98  
 West, Sara G. .... 119

Westen, Drew ..... 347, 349  
 Westerveld, Michael ..... 150  
 Westreich, Ruta ..... 247  
 White III, O.C. .... 331  
 Wick, Paul H. .... 292  
 Widiger, Thomas A. .... 180  
 Wiegand, Ryan ..... 205  
 Wigal, Sharon B. .... 45, 71  
 Wijk, Cecile Gijsbers van ..... 255  
 Wijk, Cecilia H.T. Gijsbers Van .... 256  
 Wijk, Cecilia M.t. Gijsbers Van .... 153  
 Willens, Timothy E. .... 45, 53, 232  
 Wilkins, Jeffery N. .... 313  
 Wilkinson, David ..... 28  
 Willenbring, Mark ..... 359  
 Willenbring, Mark L. .... 163, 178, 304  
 Williams, Adedapo B. .... 220  
 Williams, Caroline B. .... 114, 125  
 Williams, Eric R. .... 302  
 Williams, Jill ..... 230  
 Williamson, Kathryn E. .... 93  
 Williamson, Peter C. .... 93  
 Winkelman, John W. .... 61  
 Winstead, Daniel K. .... 307  
 Wise, M.E. Jan ..... 308  
 Wisner, Katherine L. .... 351  
 Woelwer, Wolfgang ..... 149  
 Wohlreich, Madelaine M. .... 73, 314  
 Wolf, Mary K. .... 321  
 Wolfe, Nicole F. .... 353  
 Wonderlich, Stephen A. .... 209  
 Wong, Jiahui ..... 79  
 Wong, Philip ..... 371  
 Wood, William C. .... 295  
 Woods, Scott ..... 198  
 Woods, Scott W. .... 165, 202  
 Woodside, Blake ..... 172  
 Woodward, Steve H. .... 250  
 Woolley, Stephen B. .... 75, 118  
 Worley, Linda L.M. .... 355  
 Wright, Harry H. .... 296, 331  
 Wright III, Jesse H. .... 318, 337  
 Wright, Tara ..... 359  
 Wurtman, Judith ..... 91  
 Wurtman, Richard ..... 91

X

Xia, Guohua ..... 56  
 Xu, Jimmy Y. .... 81

Y

Yacubian, Juliana ..... 92  
 Yager, Joel ..... 209, 307, 342, 356  
 Yamada, David ..... 177  
 Yang, Ronguha ..... 71  
 Yap, Liang ..... 95  
 Yaroslavsky, Yury ..... 251  
 Yaryura-Tobias, Jose A. .... 316  
 Yatham, Lakshmi N. .... 166  
 Yehuda, Rachel ..... 196  
 Yeung, Albert ..... 112, 244  
 Yeung, Paul ..... 112  
 Yim, Seonjin ..... 100  
 Young, Alveth J. .... 288  
 Young, Keith W. .... 193, 194, 318, 320  
 Yu, Shu Jing ..... 112  
 Yudofsky, Stuart C. .... 374  
 Yue, Kenneth ..... 197  
 Yum, Sun Young ..... 139  
 Yurgelun-Todd, Deborah A. .... 150  
 Yuschok, Theresa ..... 357

Z

Zajecka, John M. .... 73  
 Zammit, Gary ..... 98  
 Zanarini, Mary C. .... 171  
 Zaretsky, Ari E. .... 320  
 Zdanowicz, Mary ..... 326  
 Zeanah, Jr., Charles H. .... 329  
 Zee, Phyllis C. .... 7, 36  
 Zelnik, Thomas C. .... 68  
 Zepp, Henri ..... 104  
 Zerbe, Kathryn J. .... 209  
 Ziedonis, Douglas M. .... 178, 231  
 Ziegelstein, Roy C. .... 76  
 Zigman, Warren B. .... 167  
 Zimmerman, Mark ..... 109  
 Zisook, Sidney ..... 266  
 Zohar, Joseph ..... 245  
 Zolovska, Beata A. .... 333  
 Zonana, Howard V. .... 303  
 Zonona, Howard V. .... 374  
 Zubieta, Jon-Kar ..... 236  
 Zweben, Allen ..... 318  
 Zweig-Frank, Hallie ..... 108  
 Zyl, Louis T. van ..... 117