AMERICAN PSYCHIATRIC ASSOCIATION

Psychiatry's Role in Improving the Physical Health of Patients with Serious Mental Illness

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Expert panel to address psychiatry's role in improving physical health for persons with serious mental illness

In 2016, the American Psychiatric Association (APA) Committee on Integrated Care convened an expert panel charged with addressing Psychiatry's role in improving the physical health of patients with serious mental illness (SMI). The group conducted a systematic review of the peer reviewed and gray literature, including recent policy developments on the topic, and developed a set of recommendations grounded in this review.

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INTRODUCTION

Patients with serious mental illnesses (SMI) die years earlier than the general population, with the majority of excess deaths due to general medical conditions. A growing body of evidence-based interventions can successfully prevent and effectively treat medical conditions in this population.

In recent years, many programs and policies have been developed that hold the potential to address this problem. The 2008 Mental Health Parity and Addiction Equity Act (MHPAEA) helped ensure adequate mental health benefits and financial protections for individuals with mental and substance use disorders. The Affordable Care Act of 2010 (ACA) expanded Medicaid and the private insurance market, and funded demonstration programs that could help improve the well-being of individuals with SMI, including those with comorbid medical and substance use conditions.

In 2016, the American Psychiatric Association (APA) Committee on Integrated Care convened an expert panel to address Psychiatry's role in improving the physical health of patients with SMI. Based on a systematic review of the peer-reviewed literature and recent policy developments, the panel developed a series of recommendations to improve the whole health care of patients with SMI.

EXECUTIVE SUMMARY

Patients with serious mental illnesses (SMI) die years earlier than the general population, with the majority of excess deaths due to general medical conditions. A growing body of evidence-based interventions can successfully prevent and effectively treat medical conditions in this population.

In recent years, many programs and policies have been developed that hold the potential to address this problem. The 2008 Mental Health Parity and Addiction Equity Act (MHPAEA) helped ensure adequate mental health benefits and financial protections for individuals with mental and substance use disorders. The Affordable Care Act of 2010 (ACA) expanded Medicaid and the private insurance market, and funded demonstration programs that could help improve the well-being of individuals with SMI, including those with comorbid medical and substance use conditions.

Several recent policy developments could have significant implications for addressing the physical health of people with SMI. Repealing or scaling back the ACA could eliminate federal matching for Medicaid expansion and subsidies for insurance exchanges, remove essential health benefit requirements, curtail funding for demonstration projects addressing care coordination, or reduce funding for the public health and social safety net. The coming years will likely see greater autonomy for states in determining the scope and structure of Medicaid benefits and social services. Finally, bipartisan mental health reform legislation could help refocus policy attention on individuals with SMI.

In 2016, the American Psychiatric Association (APA) Committee on Integrated Care convened an expert panel to address psychiatry's role in improving the physical health of patients with SMI. Based on a systematic review of the peer-reviewed literature and recent policy developments, the panel developed the following recommendations:

1. **Clinical Care:** Psychiatrists' medical training makes them uniquely positioned to support the delivery of high quality, coordinated medical treatment, prevention, and mental health care to their patients with SMI. To achieve this goal, it is essential to provide training programs in outpatient medical care during internships, psychiatry residency, combined Medical/Psychiatry residency programs, CME programs for practicing psychiatrists, and cross-training opportunities for psychiatrists in working collaboratively with medical, substance use, and social services providers. Quality improvement initiatives should be implemented across the full range of settings in which patients with SMI are treated, including community-based mental health clinics, primary care clinics, and emergency rooms.

2. **Health Care Organizations:** Psychiatrists can play critical leadership roles in mental and health care delivery systems that treat patients with SMI. In these roles, they can help to implement population models and integrated payment systems that foster communication, use of patient registries, and delivery of evidence-based interventions.

3. **Research:** While a robust body of literature supports the practice of primary care-based behavioral health integration, fewer studies examine models to improve the physical health of people with SMI. Further research is needed to inform initiatives addressing the physical health of patients with SMI, as well as to understand the optimal role of psychiatrists in these models.

4. **Payers:** Current fee-for-service (FFS) reimbursement, especially in the Medicaid space, does not adequately reimburse for care management, some peer and wellness services, and many components of team-based interventions. Psychiatrists must advocate for new payment structures like the monthly case rate supplied in the new monthly current procedural terminology (CPT) code for the collaborative care model (2703 Health Homes) and enhanced Medicaid rates similar to that in federally qualified health centers Prospective payment models like Certified Community Behavioral Health Clinics (CCBHCs) should be expanded because these structures allow a per member per month payment for these ancillary services.

5. **State Policy:** With the increase in the role of state policymakers in shaping health and mental health care, psychiatry can play a key role in advocating for states to improve the health of people with SMI and provide input on program design and reform efforts. Advocacy efforts should include Medicaid directors, state mental health authorities, and other state agencies (e.g., departments of corrections).

6. **Federal Health Policy:** Even as states assume greater responsibility for setting policies, the Federal government must continue to provide vital functions for patients with SMI. Psychiatry should advocate for these key functions, including developing and implementing surveillance and monitoring efforts to track the health of people with SMI; and providing regulatory oversight and enforcement of existing policies to ensure insurance coverage, access, and quality of care for these patients.

7. **Public Health Policy:** Premature mortality in populations with SMI is ultimately a public health problem, which will require addressing prevention and treatment of medical problems, mental and substance use disorders, health behaviors (smoking, diet, physical activity), and social factors (poverty, stigma). Psychiatrists should advocate for a robust public health infrastructure that ensures prevention and treatment of ill health in individuals with SMI and addresses the community and social risk factors underlying poor outcomes in this vulnerable population.

POOR PHYSICAL HEALTH AND PREMATURE DEATH AMONG PEOPLE WITH SERIOUS MENTAL ILLNESSES

Though advances in treatment have greatly impacted medical outcomes in the general population, the outcomes for individuals with mental illness have lagged. This has resulted in a widening disparity in lifespan, with pooled relative risk for all-cause mortality significantly elevated among those with any mental disorder, particularly those with serious mental illness (SMI).[1,2] More than a decade has passed since data published from the National Association of State Mental Health Directors revealed that people with SMI treated in the public mental health system were dying, on average, 25 years earlier than the general population.[1] However, little progress has been made in rectifying this disparity, and recent data reveals that the mortality gap for those with SMI remains substantial.[3,4]

Modifiable risk behaviors including tobacco use, other substance use disorders, poor diet, lack of physical activity, and lack of adherence to treatments, contribute to the excess morbidity and early mortality related to chronic diseases. Patients with SMI engage in these behaviors at higher rates than the general population, placing them at risk for chronic medical conditions and poorer outcomes.

Though accidental causes were initially thought to explain the mortality gap, with experts focusing on suicide and other violent death as late as 1985,[5] increasing evidence has emerged in the last two decades linking psychiatric and medical illness. Rates of medical illness in those with SMI exceed those of the general population in every disease category,[1,6] and those with SMI experience higher standardized mortality ratios compared to the general population for cardiovascular, respiratory, and infectious diseases.[1] Premature death from natural causes has been estimated to contribute approximately 60% to early mortality in people with SMI,[7] and a recent meta-analysis found that 67% of deaths among people with mental illness were due to natural causes.[2] For patients with comorbid substance use disorders, infectious diseases, cancers, and accidents are particularly important causes of early death.[8]

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The relationship between mental illness, medical comorbidity, and premature mortality is complex and multifactorial. Adverse health behaviors contribute heavily. Modifiable risk behaviors, including tobacco use, other substance use disorders, poor diet, lack of physical activity, and lack of adherence to treatments, contribute to the excess morbidity and early mortality related to chronic diseases.

Patients with SMI engage in these behaviors at higher rates than the general population, placing them at risk for chronic medical conditions and poorer outcomes.[3] Adverse social determinants of health, including the effects of economic disadvantage and chronic stress, likely also play a part.[9] Side effects of medications prescribed for patients with SMI also contribute significantly, with weight gain and glucose dysregulation being noted most prominently with antipsychotic drugs.[10] Finally, those with mental illness are at risk for receiving poor-quality medical care. This is likely a significant determinant for adverse health outcomes in this popula-

tion.[11] Some individuals with SMI may be treated only in the general medical sector, present only to emergency rooms, or may receive no care at all for their medical or behavioral problems.

Many patients with SMI underuse primary care services and overuse emergency and medical inpatient care,[12] resulting in fragmented and irregular services and lower rates of preventative care.[9] Individuals with SMI are also less likely to receive adequate, standard of care treatment for medical conditions when compared to age-matched controls,[1,13-15] likely contributing to premature mortality. Many reasons underlie the lack of quality medical care for persons with SMI, including lack of insurance and the cost of care;[16] the effects of stigma on patient-provider interactions;[17] and the symptoms of mental illness, which impose challenges to accessing care and adhering to recommended treatments.[18]

RESEARCH ADDRESSING THE PROBLEM

Over the past decade, studies have provided substantial evidence for the effectiveness of both pharmacologic and behavioral interventions to target cardiovascular risk factors among persons with SMI. In particular, effective interventions are available to support smoking cessation and to promote weight loss among obese individuals, addressing the two leading causes of preventable mortality in the US (smoking and obesity). Behavioral and pharmacologic interventions have demonstrated effectiveness among individuals with SMI, and the magnitude of effects appear to be comparable to those seen in general population studies. In addition, trials and demonstration projects support strategies to improve care for individuals with SMI through systematic coordination and collaboration among treating providers.[19] Systematic coordination can also help address high rates of co-occurring substance use disorders, typically around 50% or more, which adversely impacts outcomes.[20] Integration of substance abuse and mental health services has been shown to improve effectiveness of care.[21]

Behavioral and pharmacologic interventions have demonstrated effectiveness among individuals with SMI, and the magnitude of effects appear to be comparable to those seen in general population studies.

A 2016 comprehensive review identified 108 randomized controlled trials and observational studies testing interventions to address medical conditions and risk behaviors among persons with schizophrenia and bipolar disorder between January 2000 and June 2014. The majority of included studies (n= 80) examined interventions to address overweight and

obesity. These reviews concluded that the strength of the evidence was high for four interventions: metformin and behavioral interventions had beneficial effects on weight loss; and bupropion and varenicline reduced tobacco smoking.[22] The conclusion that these four interventions are effective is consistent with previous systematic reviews[23,24] as well as a more recent randomized trial.[25]

Clinical trials of lifestyle modification interventions to reduce obesity among persons with SMI indicate that lifestyle health promotion programs that are longer duration (3 or more months), consist of a manualized, combined education- and activity-based approach, and incorporate both nutrition and physical exercise, are likely to be the most effective in reducing weight, improving physical fitness and improving overall health.[26] Large-scale randomized control trials (RCTs)[27] suggest that up to 40% of patients can achieve clinically significant weight loss (defined as >5% of initial body weight). Average (mean) weight loss across trials has been more modest 3-4 kg or 4 % of initial body weight.[23]

Similar magnitudes of weight loss have been reported in studies of pharmacologic strategies to target obesity, including metformin (3 kg in 16-week trial),[28] and trials of switching an antipsychotic medication with high metabolic liability to one with lower metabolic liability (3.6 kg in 24 weeks).[29] Metformin is not currently FDA-approved for weight loss, and there is no research to inform duration of treatment beyond 16 weeks. The combination of metformin and lifestyle modification also results in clinically significant weight loss among individuals with SMI.[30] This may be particularly important among young adults experiencing a first episode of psychosis, given that this population presents an opportunity for primary prevention,[31] as weight gain and adverse metabolic effects appear to begin within the first two months of treatment.[32]

RCT provide evidence for the effectiveness of metformin for preventing olanzapine-induced weight gain[33] and amenorrhea[34] among persons with a first episode of psychosis.

There has been little research involving persons with SMI who have co-morbid chronic medical conditions. Individuals with SMI are typically excluded from large clinical trials of medical interventions, and in the studies included in the above-cited reviews, medical outcomes (such as hemoglobin A1c, BP, LDL) were secondary outcomes in weight loss intervention studies. The Agency for Health Research and Quality (AHRQ) review cited above identified a single study of persons with schizophrenia and diabetes. This weight loss intervention resulted in clinically significant weight loss, but there was no effect on A1c, likely because mean A1c was normal at baseline.[35] One recent 24-week trial found that metformin treatment had significant effect on improving antipsychotic-associated dyslipidemia. In this study, improvement of lipid profile was at least partly independent of reducing insulin resistance.[36] Chronic illness self-management groups improve individuals' patient activation and physical health-related quality of life,[37] but studies of such interventions have not demonstrated improvements in medical outcomes.

Strategies to improve care which are based on the chronic illness management model,38 such as systematic care coordination and collaboration among treating providers, have been evaluated among SMI populations. Care management based in community mental health centers appears to improve engagement in primary care and 10-year cardiovascular disease (CVD) risk.[39] However, a large multicenter 3-arm trial that evaluated lifestyle modification vs. lifestyle modification plus care coordination vs. usual care did not find superior effectiveness in either intervention arm in reducing 10-year CVD risk.[40]

Models of care to integrate physical health monitoring and provision of primary care services represent a continuum of level of collaboration and practice structure. One recent RCT evaluated the effectiveness of a behavioral health home developed as a partnership between a community mental health center (CMHC) and federally qualified health center (FQHC) compared to usual care. Compared to usual care, the behavioral health home was associated with significant improvements in quality of cardiometabolic care and increased use of preventive services. Both groups in the trial experienced improvements in general medical outcomes, however there were no statistically significant differences between the two groups over time.[41]

Findings from the above research have been incorporated into expert consensus guidelines. For example, the 2014 UK National Institute for Health and Care Excellence (NICE) Guidelines for the Treatment of Adults with Schizophrenia specifically recommend that people with psychosis or schizophrenia, especially those taking antipsychotic medications, should be offered a combined healthy eating and physical activity program by their mental healthcare provider, as well as varenicline and bupropion for smoking cessation if they are current smokers. In addition, performance indicators should be tracked and reported to ensure compliance with quality standards on the monitoring and treatment of cardiovascular and metabolic disease in people with psychosis or schizophrenia.[42]

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There is still much work to be done to identify or develop best practices to improve the medical care and medical outcomes among persons with SMI, and to increase access to evidence-based care.[43] Future studies should test long-term interventions for cardiovascular risk factors and health-risk behaviors, and evaluate the impact of interventions on all-cause mortality. Studies are also needed to evaluate strategies to disseminate more widely effective interventions in real world settings. In many instances, significant resources might need to be dedicated to enhance engagement in care; and the most feasible and appropriate settings for intervention may not be clinical settings. Family support interventions and innovative collaborations with other disciplines and community partners may address some of the social determinants of health that increase risk factors and limit engagement, which are among the most challenging barriers to reducing premature mortality in this vulnerable population.

Given the high burden of chronic medical conditions, such as hypertension and diabetes, interventions are needed to specifically target the treatment of these disorders. In particular, studies should explore how to optimize the roles of a diverse multidisciplinary workforce, including peer support specialists, as a stepped-care approach to match intensive services to high need individuals. Technological innovations to support service delivery and care coordination should also be leveraged to integrate behavioral and physical healthcare for this population. Finally, models that can simultaneously address mental health, substance use, and medical conditions will be needed to address the high levels of co-occurrence and the adverse consequences of comorbidity among them.

COMMUNITY INNOVATIONS: SAMHSA'S PRIMARY BEHAVIORAL HEALTHCARE INITIATIVE (PBHCI) PROGRAM

The Substance Abuse and Mental Health Service Administration (SAMHSA) Primary Behavioral Healthcare Initiative (PBHCI) program has funded over 200 projects in community mental health centers since 2009. These programs seek to improve health by creating partnerships between CMHCs and primary care organizations, facilitating coordination of care between these organizations, tracking health outcomes by using a registry, and offering evidence-based programs for creating change, such as smoking cessation.

Even though these programs have been vigorously funded, there is relatively little outcome data on their effectiveness. The RAND Corporation conducted the evaluation of the PBHCI program following its first year.[44] Comparison was done between three PBHCI centers and three similar CMHC sites that had not been funded. PBHCI consumers had greater mean reductions for total cholesterol and LDL cholesterol and greater increases in HDL cholesterol, however there were no significant PBHCI effects for any other health indicators.[41]

In terms of implementation of planned programming, PBHCI programs experienced several challenges, including lower-than-expected rates of consumer enrollment, financial sustainability, communication within the actual team, and creating an integrated clinic culture. Smoking cessation programs also proved difficult to effectively implement. SAMHSA has made changes in grantee expectations because of these findings, adding greater structure and standardization to participation requirements. Sustainability of these programmatic changes has been difficult for many PBHCI grantees following the grant period. Some CMHC's have been unable to sustain relationships with primary care partners, and some have transformed themselves into agencies that provide both mental health and primary care, such as FQHCs.

Based on the experience of some of the more successful programs, best practices in community mental health settings most likely include development and use of a registry function; acculturation and training of mental health case managers to include the care of physical health as part of their core mission; taking seriously the slow and difficult culture change in the CMHC that is required at all levels; the use of evidence-based behavior change technologies, including motivational interviewing; and involvement of CMHC personnel in larger initiatives to support funding, such as state-wide Medicaid initiatives. Funding arrangements that make possible team-based coordinated care are needed, often at the level of state Medicaid waivers, and in the long term, should be feasible. A second evaluation is in process and will continue through 2020.[42]

EMERGING ROLES FOR PSYCHIATRISTS

Psychiatrists can provide a range of services to address the poor health of patients with SMI. These activities can include screening for medical conditions; counseling patients to reduce cardiovascular risk factors; treating adverse health behaviors, including smoking; limiting side effects from psychotropic medications; coordinating with medical care providers; and providing medical services and medication assisted treatment for patients who do not currently have primary medical providers.[45]

The decision about specific treatments psychiatrists should provide for individual patients depend on a number of factors, including:

1. the acuity and severity of the medical problem;
2. patients' access to medical care;
3. psychiatrists' medical training and permissible scope of practice;
4. the capacity of the mental health organization to provide medical care; and
5. patient preferences for medical treatment.[46]

There is an important role for psychiatrists who are knowledgeable about this work to be involved with planning such funding innovations. Psychiatrists in leadership roles can also play an important role in promoting better physical health for patients. Medical directors of CMHCs or of behavioral health homes should establish protocols and monitor outcomes for their medical staff.

FEDERAL AND STATE POLICIES ADDRESSING CARE FOR PERSONS WITH SMI

Improving health care delivery and health outcomes for people with serious mental illnesses requires a robust medical safety net. The last decade has seen the passage of landmark federal legislation improving insurance coverage and testing new models of care delivery that could have an important positive impact on the lives of people with SMI.

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Insurance Coverage: Employers have historically provided the bulk of health insurance in the United States. Because serious mental illness makes it difficult to obtain and maintain a job, people with serious mental illnesses are disproportionately likely to be uninsured or covered by Medicaid.[47] Prior to the passage of the Affordable Care Act, nearly one in five Americans covered in the individual market had no coverage for mental health services,[48] and an estimated 12 million individuals with mental and/or substance use disorders lacked insurance.[47] For those who had insurance, annual and lifetime caps limited benefits and raised the risk of bankruptcy or financial hardship due to mental health expenditures.

The 2008 Mental Health Parity and Addiction Equity Act (MHPAEA) provided a first step towards improving access to health insurance and reducing financial burden for patients with serious mental illnesses.[49] The act provided that large group health plans cannot impose annual or lifetime dollar limits on mental health

benefits that are less favorable than limits imposed on medical/surgical benefits.[50] A final regulation implementing MHPAEA took effect in January of 2014.
The Affordable Care Act of 2010 built on the MHPAEA to expand health insurance coverage for patients with mental illnesses.[51,52] First, it provided access for many uninsured Americans through private health insurance in the individual and small group markets, the Marketplaces, and Medicaid alternative benefit plans (ABPs). Second, it included both mental health benefits and routine medical care (e.g., outpatient care, emergency room visits, and pharmaceuticals) as essential health benefits for health insurance purchased through individual and small group markets and Medicaid ABPs.

Demonstration projects: In addition to expanding insurance, the Affordable Care Act included funding for demonstration projects to improve care for high cost, complex patients including people with serious mental illnesses. Section 2703 of the Act provided funding for states to design health homes to provide comprehensive care coordination for Medicaid beneficiaries with chronic conditions, including mental illnesses. As of September 2016, 19 states and the District of Columbia had developed a total of 28 approved Medicaid health home models, with the vast majority including a focus on enrollees with SMI.[53] The Center for Medicare and Medicaid Innovation (CMMI) and the Patient Centered Outcomes Research Institute (PCORI) are funding large-scale demonstration projects and pragmatic trials of new models of services delivery for patients with serious mental illnesses.

The Protecting Access to Medicare Act (H.R. 4302), includes a demonstration program testing Certified Community Behavioral Health Clinics (CCBHCs), which provide community-based services to individuals with serious mental illnesses.[54] On December 1, 2016 the Department of Health and Human Services (HHS) announced the eight states selected to participate: Oregon, Pennsylvania, Missouri, Nevada, Oklahoma, New York, New Jersey and Minnesota.[55] These participating CCBHCs must have a psychiatrist medical director who ensures the medical component of care and the integration of behavioral health and primary care. Quality metrics include preventive services including BMI screening for adults and children, diabetes screening for patients with schizophrenia or bipolar disorder using antipsychotic medications, and tobacco screening and cessation intervention.[56,57] There are six Quality Bonus Payment measures; however, none of these are tied to physical health indicators. States can require additional quality measures to enhance provision of quality physical health care. Care coordination is an important aspect and includes the requirement of "partnerships or MOUs (Memorandum of Understanding) with FQHCs and RHCs for primary care services to the extent these services are not provided by the CCBHC."

Several major policy developments could have significant implications for addressing the health and health care of people with serious mental illnesses. First, the administration and Congress have made repealing the Affordable Care Act a high priority. Changes could occur under legislation or an Executive Order which may roll back subsidies for Medicaid expansion and insurance exchanges and the essential health benefits requirements.[58,59] Because patients with serious mental illnesses are more likely to have barriers to access and coordination of care, these changes could disproportionately affect these individuals. The future of the Affordable Care Act's Prevention and Public Health Fund, which provides funding for a range of preventive and community service, is also currently uncertain.[60]

Additional changes under consideration would result in greater autonomy for

states in determining the scope and structure of Medicaid benefits through block grants, spending caps and/or waivers.[61] Block grants, which could result in restrictions both on eligibility for Medicaid and generosity of benefits for existing enrollees, could be particularly problematic for poor and vulnerable populations, including those with serious mental illnesses.[61] Individuals with SMI, who are disproportionately likely to be poor and unemployed, are also dependent on the social safety net, including support for income, food, and housing. The coming years will likely see an increasingly important role for state mental health authorities and Medicaid agencies in providing funding and services for people with serious mental illnesses.

Finally, bipartisan mental health reform legislation, titled the 21st Century Cures Act, was passed by Congress and signed into law by President Obama on December 13, 2016.[62] This legislation establishes a new presidentially-appointed Assistant Secretary for Mental Health and Substance Use Disorders, as well as a Chief Medical Officer appointed by the Assistant Secretary. The program authorizes funding for several programs delivering evidence-based prevention and treatment services for individuals with serious mental illnesses. It also supports "the improvement of integrated care models for primary care and behavioral health care to improve the overall wellness and physical health of adults with a serious mental illness or children with a serious emotional disturbance." This legislation can help keep policy attention focused on individuals with mental illnesses.

These developments continue to evolve, and it is difficult to fully predict how they will play out over the coming years. However, it will be critical for advocates, researchers, and policymakers to keep a focus on the health and well-being of people with SMI in the coming years.

RECOMMENDATIONS

Based on the findings from this literature and policy review, the expert panel developed the following recommendations for psychiatry to address physical health of people with serious mental illnesses:

1. **Clinical Care:** Psychiatrists' medical training makes them uniquely positioned to support the delivery of high quality, coordinated medical treatment, prevention, and mental health care to their patients with SMI. To achieve this goal, it is essential to provide training programs in outpatient medical care during internships, psychiatry residency, combined medical/psychiatry residency programs, CME programs for practicing psychiatrists, and cross-training opportunities for psychiatrists in working collaboratively with medical, substance use, and social services providers. Quality improvement initiatives should be implemented across the full range of settings in which patients with SMI are treated, including community-based mental health clinics, primary care clinics, and emergency rooms.

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