

The American Psychiatric Association Practice Guideline for the Treatment of Patients with Eating Disorders

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Acronyms/Abbreviations

AAP	American Academy of Pediatrics	DBT	Dialectical behavior therapy
AACAP	American Academy of Child and Adolescent Psychiatry	DHEA	Dehydroepiandrosterone
ACOG	American College of Obstetricians and Gynecologists	DIC	Deviation information criterion
ADHD	Attention-deficit/hyperactivity disorder	DSM	Diagnostic and Statistical Manual of Mental Disorders
AFT	Adolescent focused therapy	DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, 4th Edition
AN	Anorexia nervosa	DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th Edition
APA	American Psychiatric Association	DXA	Dual X-ray absorptiometry
ARFID	Avoidant/restrictive food intake disorder	ECHO	Experienced Caregivers Helping Others
BDI	Beck Depression Inventory	ECG	Electrocardiogram
BED	Binge-eating disorder	ECT	Electroconvulsive therapy
BES	Binge Eating Scale	EDE	Eating Disorder Examination
BMD	Bone mineral density	EDE-Q	Eating Disorder Examination Questionnaire
BMI	Body mass index	EBW	Expected body weight
BN	Bulimia nervosa	EE	Expressed emotion
BWL	Behavioral weight loss	EHR	Electronic health record
CBT	Cognitive-behavioral therapy	FBT	Family-based treatment/therapy
CBT-E	Enhanced cognitive-behavioral therapy	FPT	Focal psychodynamic psychotherapy
CGI	Clinical Global Impression	GI	Gastrointestinal
CI	Confidence interval; credible interval (when used in describing network meta-analysis results)	GFR	Glomerular filtration rate
CPT	Current Procedural Terminology	GRADE	Grading of Recommendations Assessment, Development and Evaluation
		GSH	Guided self-help

GWG Guideline Writing Group

IBW Ideal body weight

IPT Interpersonal psychotherapy

MANTRA Maudsley Model of Anorexia Nervosa Treatment for Adults

NESARC-III National Epidemiologic Survey Alcohol and Related Conditions-III

NGT Nasogastric tube

NIMH National Institute of Mental Health

NMA Network meta-analysis

OCD Obsessive-compulsive disorder

OR Odds ratio

OTC Over-the-counter

PARDI Pica, ARFID, and Rumination Disorder Interview

PTSD Posttraumatic stress disorder

RCT Randomized controlled trial

RDoC Research Domain Criteria

RMD Relative mean difference

RR Relative risk

SEM Standard error of the mean

SRG Systematic Review Group

SSCM Specialist Supportive Clinical Management

SD Standard deviation

SPT Supportive psychotherapy

SSRI Selective serotonin reuptake inhibitor

TAU Treatment as usual

Introduction

Rationale

The goal of this guideline is to improve the quality of care and treatment outcomes for patients with eating disorders, as defined by the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5; American Psychiatric Association 2013). As described in Scope of Document, we focus primarily on anorexia nervosa (AN), bulimia nervosa (BN), and binge-eating disorder (BED) rather than other DSM-defined feeding and eating disorders. Since publication of the last American Psychiatric Association (APA) practice guideline (American Psychiatric Association 2006) and guideline watch on eating disorders (Yager et al. 2012), there have been many studies on psychotherapies for individuals with these diagnoses as well as some studies on pharmacotherapies. Despite this, there are still substantial gaps in the availability and use of evidence-based treatments for individuals with an eating disorder (Kazdin et al. 2017). This practice guideline aims to help clinicians improve care for their patients by reviewing current evidence and providing evidence-based statements that are intended to enhance knowledge, increase assessment, and optimize treatment of eating disorders.

The lifetime prevalence of eating disorders in the United States is approximately 0.80% for AN, 0.28% for BN, and 0.85% for BED (Udo and Grilo 2018), although estimates can vary depending on the study location, sample demographic characteristics, case finding, and diagnostic approaches (Galmiche et al. 2019; Santomauro et al. 2021; Wu et al. 2020). For example, the prevalence of an eating disorder appears to be higher in LGBTQ+ individuals than in cisgender heterosexual peers (Kamody et al. 2020; Nagata et al. 2020b). Furthermore, data suggest an increasing incidence of eating disorders and inpatient care for eating disorders, particularly AN, during the COVID-19 pandemic (Agostino et al. 2021; Asch et al. 2021; Otto et al. 2021; Taquet et al. 2021). Importantly, the lifetime burdens and psychosocial impairments associated with an eating disorder can be substantial because these illnesses can persist for decades, and they typically have an onset in adolescence or early adulthood (Udo and Grilo 2018).

In the United States, for the 2018-2019 fiscal year, the total economic costs of eating disorders were estimated to be \$64.7 billion with an additional \$326.5 billion attributable to reductions in well-being associated with eating disorders (Streatfeild et al. 2021). Of total economic costs, AN represented 17% of costs, BN 18% of costs, and BED 30% of costs (Streatfeild et al. 2021). Evidence from other countries is consistent with the United States' findings and emphasizes the high economic burdens associated with eating disorders (Jenkins 2021; Tannous et al. 2021; van Hoeken and Hoek 2020).

Eating disorders are associated with increases in all-cause mortality and deaths due to suicide (Auger et al. 2021; Nielsen and Vilmar 2021; Tith et al. 2020; van Hoeken and Hoek 2020). With AN, the increases in risks of mortality and premature death are substantially greater in men than in women (Edakubo and Fushimi 2020; Fichter et al. 2021; Iwajomo et al. 2021; Quadflieg et al. 2019) although the absolute numbers of deaths associated with an eating disorder are greater in women. Rates of suicide attempts are also increased in individuals who have an eating disorder (Keski-Rahkonen 2021; Smith et al. 2018; Udo et al. 2019). Morbidity and mortality among individuals with an eating disorder are heightened by the common co-occurrence of health conditions, such as diabetes, and other psychiatric disorders,

particularly depression, anxiety, posttraumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), attention-deficit/hyperactivity disorder (ADHD), and substance use disorders (Ahn et al. 2019; Cliffe et al. 2020; Gibbings et al. 2021; Keski-Rahkonen 2021; Udo and Grilo 2019).

Accordingly, the overall goal of this guideline is to enhance the assessment and treatment of eating disorders, thereby reducing the mortality, morbidity, and significant psychosocial and health consequences of these important psychiatric conditions.

Scope of Document

This practice guideline focuses on evidence-based pharmacological, psychotherapeutic, and other nonpharmacological treatments for eating disorders in adolescents, emerging adults, and adults. In addition, it includes statements related to assessment and treatment planning, which are an integral part of patient-centered care.

The scope of this document is shaped by the diagnostic criteria for eating disorders and by the available evidence as obtained by a systematic review of the literature through September 2021. In particular, it focuses on AN, BN, and BED as defined by DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR, DSM-5, or ICD-10. Some of the studies included individuals whose symptoms were below the threshold for a diagnosis of AN, BN, or BED, but these data were rarely analyzed separately in a way that would permit unique recommendations to be crafted for this group of patients. Nevertheless, some guideline statements may also be relevant to individuals with unspecified or other specified feeding or eating disorders.

Our systematic review attempted to include literature on avoidant/restrictive food intake disorder (ARFID); however, rigorous clinical trial data were not available due to the relative recency of the introduction of this diagnosis. Consequently, none of the guideline statements are related to the treatment of ARFID. However, we have included some discussion of ARFID in the implementation sections of this document, particularly as it relates to assessment and treatment planning.

We specifically excluded rumination disorder and pica from our search of the literature due to their typical age of onset in infancy or childhood and the limited evidence on their treatment. We also excluded treatment of obesity from the scope of this guideline because obesity is not categorized as an eating disorder. Although obesity is common among individuals who are treated in psychiatric practice, literature on obesity is already summarized by practice guidelines from other organizations and professional societies.

Most studies reported including a preponderance of women, typically adolescents or young adults, but participants' genders were not described more fully. Most studies also enrolled predominantly white participants or did not specify the racial, ethnic, or cultural characteristics of the sample. These limitations of the evidence should be considered in terms of the document scope and the compelling need for additional research in more representative samples. In addition, as evidence accrues and as social norms change, terminology will likely evolve as well (Flanagin et al. 2021; OHSU Center for Diversity and Inclusion 2021).

Data are also limited on individuals with eating disorders and significant physical health conditions or co-occurring psychiatric conditions, including substance use disorders. Many of the available studies of eating disorders did not analyze data separately for these patient subgroups or excluded individuals with these comorbidities. Nevertheless, in the absence of more robust evidence, the statements in this guideline should generally be applicable to individuals with co-occurring conditions.

Our systematic review did not include studies for preventive interventions (Harrer et al. 2020; Stice et al. 2021; Watson et al. 2016) or risk factors for eating disorders, such as frequent dieting behaviors, childhood abuse, or bullying (Emery et al. 2021; Hooper et al. 2021; Lie et al. 2019; Solmi et al. 2021; Yoon et al. 2020). It also did not include search terms to identify literature on stigma and discrimination, either as risk factors for eating disorders, contributors to symptoms, or barriers to seeking treatment (Ali et al. 2017; Brelet et al. 2021; Bristow et al. 2020; Foran et al. 2020; Hamilton et al. 2022; O'Connor et al. 2021). Each of these topics is important but would warrant a distinct systematic review from one focused on treatments for eating disorders. Cost-effectiveness considerations are also outside of the scope of this guideline. Although treatment-related costs are often barriers to receiving treatment, costs of treatment typically differ by country and geographic region, and vary widely with the health system and payment model. In addition, few high-quality studies exist on the cost-effectiveness of treatments for eating disorders that could be used to inform health care policy.

Although we discuss studies of specific psychotherapies that were delivered via a web-based approach, we do not discuss telehealth as a specific intervention as there were no direct comparisons of telehealth and in-person care prior to 2020. There is a rapidly expanding literature on use of telehealth (Anderson et al. 2017; Blalock et al. 2020; Levinson et al. 2021; Matheson et al. 2020; Raykos et al. 2021; Stewart et al. 2021; Waller et al. 2020), web-based interventions (Barakat et al. 2019), and mobile apps (Anastasiadou et al. 2018; Linardon et al. 2020; Wasil et al. 2021) in the treatment of eating disorders, which will help to inform future practice guidelines.

Overview of the Development Process

Since the publication of *Clinical Practice Guidelines We Can Trust* (Institute of Medicine 2011a), a report of the Institute of Medicine (now known as National Academy of Medicine), there has been an increasing focus on using clearly defined, transparent processes for rating the quality of evidence and the strength of the overall body of evidence in systematic reviews of the scientific literature. This guideline was developed using a process intended to be consistent with the recommendations of the Institute of Medicine (Institute of Medicine 2011a) and *the Principles for the Development of Specialty Society Clinical Guidelines* of the Council of Medical Specialty Societies (2012). Parameters used for the guideline's systematic review are included with the full text of the guideline; the development process is fully described in the following document available at the APA Web site:

<https://www.psychiatry.org/psychiatrists/practice/clinical-practice-guidelines/guideline-development-process>.

Rating the Strengths of Guideline Statements and Supporting Research Evidence

Development of guideline statements entails weighing the potential benefits and harms of the statement and then identifying the level of confidence in that determination. (See Appendix G for

detailed descriptions of the potential benefits and harms for each statement.) This concept of balancing benefits and harms to determine guideline recommendations and strength of recommendations is a hallmark of GRADE (Grading of Recommendations Assessment, Development and Evaluation), which is used by multiple professional organizations around the world to develop practice guideline recommendations (Guyatt et al. 2013). With the GRADE approach, recommendations are rated by assessing the confidence that the benefits of the statement outweigh the harms and burdens of the statement, determining the confidence in estimates of effect as reflected by the quality of evidence, estimating patient values and preferences (including whether they are similar across the patient population), and identifying whether resource expenditures are worth the expected net benefit of following the recommendation (Andrews et al. 2013).

In weighing the balance of benefits and harms for each statement in this guideline, our level of confidence is informed by available evidence (see Appendix C), which includes evidence from clinical trials as well as expert opinion and patient values and preferences. Evidence for the benefit of a particular intervention within a specific clinical context is identified through systematic review and is then balanced against the evidence for harms. In this regard, harms are broadly defined and may include serious adverse events, less serious adverse events that affect tolerability, minor adverse events, negative effects of the intervention on quality of life, barriers and inconveniences associated with treatment, direct and indirect costs of the intervention (including opportunity costs), and other negative aspects of the treatment that may influence decision making by the patient, the clinician, or both.

Many topics covered in this guideline have relied on forms of evidence such as consensus opinions of experienced clinicians or indirect findings from observational studies rather than research from randomized trials. It is well recognized that there are guideline topics and clinical circumstances for which high-quality evidence from clinical trials is not possible or is unethical to obtain (Council of Medical Specialty Societies 2012). For example, many questions need to be asked as part of an assessment and inquiring about a particular symptom or element of the history cannot be separated out for study as a discrete intervention. It would also be impossible to separate changes in outcomes due to assessment from changes in outcomes due to ensuing treatment. Research on psychiatric assessments and some psychiatric interventions can also be complicated by multiple confounding factors such as the interaction between the clinician and the patient or the patient's unique circumstances and experiences. The GRADE working group and guidelines developed by other professional organizations have noted that a strong recommendation or "good practice statement" may be appropriate even in the absence of research evidence when sensible alternatives do not exist (Andrews et al. 2013; Brito et al. 2013; Djulbegovic et al. 2009; Hazlehurst et al. 2013). For each guideline statement, we have described the type and strength of the available evidence as well as the factors, including patient preferences, that were used in determining the balance of benefits and harms.

The authors of the guideline determined each final rating, as described in the section "Guideline Development Process" (see Table 1). A *recommendation* (denoted by the numeral 1 after the guideline statement) indicates confidence that the benefits of the intervention clearly outweigh harms. A *suggestion* (denoted by the numeral 2 after the guideline statement) indicates greater uncertainty. Although the benefits of the statement are still viewed as outweighing the harms, the balance of

benefits and harms is more difficult to judge, or either the benefits or the harms may be less clear. With a suggestion, patient values and preferences may be more variable, and this can influence the clinical decision that is ultimately made. Each guideline statement also has an associated rating for the *strength of supporting research evidence*. Three ratings are used: *high*, *moderate*, and *low* (denoted by the letters A, B, and C, respectively) and reflect the level of confidence that the evidence for a guideline statement reflects a true effect based on consistency of findings across studies, directness of the effect on a specific health outcome, precision of the estimate of effect, and risk of bias in available studies (Agency for Healthcare Research and Quality 2014; Balshem et al. 2011; Guyatt et al. 2006).

Table 1. Rating the strengths of guideline statements and evidence for guideline statements

Strength of guideline statement			Strength of evidence		
1	Recommendation	Denotes confidence that the benefits of the intervention clearly outweigh the harms.	A	High confidence	Further research is very unlikely to change the estimate of effect and our confidence in it.
2	Suggestion	Denotes benefits that are viewed as outweighing harms, but the balance is more difficult to judge and patient values and preferences may be more variable.	B	Moderate confidence	Further research may change the estimate of effect and our confidence in it.
			C	Low confidence	Further research is likely to change the estimate of effect and our confidence in it.

Proper Use of Guidelines

The APA Practice Guidelines are assessments of current (as of the date of authorship) scientific and clinical information provided as an educational service. The guidelines 1) should not be considered as a statement of the standard of care or inclusive of all proper treatments or methods of care; 2) are not continually updated and may not reflect the most recent evidence, as new evidence may emerge between the time information is developed and when the guidelines are published or read; 3) address only the question(s) or issue(s) specifically identified; 4) do not mandate any particular course of medical care; 5) are not intended to substitute for the independent professional judgment of the treating clinician; and 6) do not account for individual variation among patients. As such, it is not possible to draw conclusions about the effects of omitting a particular recommendation, either in general or for a specific patient. Furthermore, adherence to these guidelines will not ensure a successful outcome for every individual, nor should these guidelines be interpreted as including all proper methods of evaluation and care or excluding other acceptable methods of evaluation and care aimed at the same results. The ultimate recommendation regarding a particular assessment, clinical procedure, or treatment plan must be made by the clinician directly involved in the patient's care in light of the

psychiatric evaluation, other clinical data, and the diagnostic and treatment options available. Such recommendations should be made in collaboration with the patient, whenever possible, and incorporate the patient's personal and sociocultural preferences and values, which can enhance the therapeutic alliance, adherence to treatment, and treatment outcomes. For all of these reasons, the APA cautions against the use of guidelines in litigation. Use of these guidelines is voluntary. APA provides the guidelines on an "as is" basis and makes no warranty, expressed or implied, regarding them. APA assumes no responsibility for any injury or damage to persons or property arising out of or related to any use of the guidelines or for any errors or omissions.

Guideline Statement Summary

Assessment and Determination of Treatment Plan

Statement 1. APA recommends (1C) screening for the presence of an eating disorder as part of an initial psychiatric evaluation.

Statement 2. APA recommends (1C) that the initial evaluation of a patient with a possible eating disorder include assessment of

- the patient's height and weight history (e.g., maximum and minimum weight, recent weight changes);
- presence of, patterns in, and changes in restrictive eating, food avoidance, binge eating, and other eating-related behaviors (e.g., rumination, regurgitation, chewing and spitting);
- patterns and changes in food repertoire (e.g., breadth of food variety, narrowing or elimination of food groups);
- presence of, patterns in, and changes in compensatory and other weight control behaviors, including dietary restriction, compulsive or driven exercise, purging behaviors (e.g., laxative use, self-induced vomiting), and use of medication to manipulate weight;
- percentage of time preoccupied with food, weight, and body shape;
- prior treatment and response to treatment for an eating disorder;
- psychosocial impairment secondary to eating or body image concerns or behaviors; and
- family history of eating disorders, other psychiatric illnesses, and other medical conditions (e.g., obesity, inflammatory bowel disease, diabetes mellitus).

Statement 3. APA recommends (1C) that the initial psychiatric evaluation of a patient with a possible eating disorder include weighing the patient and quantifying eating and weight control behaviors (e.g., frequency, intensity, or time spent on dietary restriction, binge eating, purging, exercise, and other compensatory behaviors).

Statement 4. APA recommends (1C) that the initial psychiatric evaluation of a patient with a possible eating disorder identify co-occurring health conditions, including co-occurring psychiatric disorders.

Statement 5. APA recommends (1C) that the initial psychiatric evaluation of a patient with a possible eating disorder include a comprehensive review of systems.

Statement 6. APA recommends (1C) that the initial physical examination of a patient with a possible eating disorder include assessment of vital signs, including temperature, resting heart rate, blood pressure, orthostatic pulse, and orthostatic blood pressure; height, weight, and BMI (or percent median BMI, BMI percentile, or BMI Z-score for children and adolescents); and physical appearance, including signs of malnutrition or purging behaviors.

Statement 7. APA recommends (1C) that the laboratory assessment of a patient with a possible eating disorder include a complete blood count and a comprehensive metabolic panel, including electrolytes, liver enzymes, and renal function tests.

Statement 8. APA recommends (1C) that an electrocardiogram be done in patients with a restrictive eating disorder, patients with severe purging behavior, and patients who are taking medications that are known to prolong QTc intervals.

Statement 9. APA recommends (1C) that patients with an eating disorder have a documented, comprehensive, culturally appropriate, and person-centered treatment plan that incorporates medical, psychiatric, psychological, and nutritional expertise, commonly via a coordinated multidisciplinary team.

Anorexia Nervosa

Statement 10. APA recommends (1C) that patients with anorexia nervosa who require nutritional rehabilitation and weight restoration have individualized goals set for weekly weight gain and target weight.

Statement 11. APA recommends (1B) that adults with anorexia nervosa be treated with an eating disorder-focused psychotherapy, which should include normalizing eating and weight control behaviors, restoring weight, and addressing psychological aspects of the disorder (e.g., fear of weight gain, body image disturbance).

Statement 12. APA recommends (1B) that adolescents and emerging adults with anorexia nervosa who have an involved caregiver be treated with eating disorder-focused family-based treatment, which should include caregiver education aimed at normalizing eating and weight control behaviors and restoring weight.

Bulimia Nervosa

Statement 13. APA recommends (1C) that adults with bulimia nervosa be treated with eating disorder-focused cognitive-behavioral therapy and that a serotonin reuptake inhibitor (e.g., 60 mg fluoxetine daily) also be prescribed, either initially or if there is minimal or no response to psychotherapy alone by 6 weeks of treatment.

Statement 14. APA suggests (2C) that adolescents and emerging adults with bulimia nervosa who have an involved caregiver be treated with eating disorder-focused family-based treatment.

Binge-Eating Disorder

Statement 15. APA recommends (1C) that patients with binge-eating disorder be treated with eating disorder-focused cognitive-behavioral therapy or interpersonal therapy, in either individual or group formats.

Statement 16. APA suggests (2C) that adults with binge-eating disorder who prefer medication or have not responded to psychotherapy alone be treated with either an antidepressant medication or lisdexamfetamine.

Guideline Statements and Implementation

Assessment and Determination of Treatment Plan

Statement 1 – Screening for Presence of an Eating Disorder

APA recommends (1C) screening for the presence of an eating disorder as part of an initial psychiatric evaluation.

Implementation

Estimates of the prevalence and disease burden associated with eating disorders vary by country and also depend on the methodology of the epidemiologic study (Galmiche et al. 2019; Santomauro et al. 2021; Wu et al. 2020). Among individuals in the United States assessed in the 2012–2013 National Epidemiologic Survey Alcohol and Related Conditions-III (NESARC-III), the 12-month prevalence estimates for AN, BN, and BED were 0.05% (standard error of the mean [SEM] 0.02%), 0.14% (SEM 0.02%), and 0.44% (SEM 0.04%) whereas lifetime estimates were 0.80% (SEM 0.07%), 0.28% (SEM 0.03%), and 0.85% (SEM 0.05%), respectively (Udo and Grilo 2018). Somewhat different estimates were found in prior smaller studies such as the National Comorbidity Replication Survey (Hudson et al. 2007) and pooled data from the National Institute of Mental Health (NIMH) Collaborative Psychiatric Epidemiological Studies (Marques et al. 2011). Other studies suggest that the prevalence of eating disorders may be increasing (Favaro et al. 2009; Galmiche et al. 2019). Furthermore, many of these studies did not fully assess for unspecified or other specified eating disorders. As a result, the actual burden of eating disorders is likely to be underestimated (Feltner et al. 2021; Harrop et al. 2021; United States Preventive Services Task Force 2022; Ward et al. 2019).

In the NESARC-III findings, women were more likely to have a 12-month diagnosis, or a lifetime diagnosis as compared to men (adjusted odds ratio (OR) for 12-month diagnosis 6.48 for AN, 5.16 for BN, 2.37 for BED and for lifetime diagnosis 12.00 for AN, 5.80 for BN, 3.01 for BED; Udo and Grilo 2018). A lifetime diagnosis of BN was just as likely in Hispanic white and non-Hispanic Black individuals as in non-Hispanic white individuals; however, a lifetime diagnosis of AN was more likely in non-Hispanic white individuals than in Hispanic and non-Hispanic Black individuals whereas BED was more common in non-Hispanic white than non-Hispanic Black individuals (Udo and Grilo 2018). LGBTQ+ individuals were also more likely to have a lifetime eating disorder diagnosis than cisgender heterosexual individuals, with adjusted ORs of 1.93 for AN, 3.69 for BN, 2.32 for BED, and 1.96 for any eating disorder (Kamody et al. 2020). In addition, more recent data suggest an increasing incidence of eating disorders and inpatient care for eating disorders, particularly AN, during the COVID-19 pandemic and these increases appear to be unrelated to prior COVID-19 infection (Agostino et al. 2021; Asch et al. 2021; Lin et al. 2021; Otto et al. 2021; Taquet et al. 2021; Toulany et al. 2022).

The United States Preventive Services Task Force notes that there is insufficient evidence for routine screening for eating disorders in adolescents and adults (age 10 years or older) who have no signs or symptoms of an eating disorder (United States Preventive Services Task Force 2022). On the other hand, it can be challenging to identify eating disorder signs, symptoms, or risk factors without specific attention to these elements during the evaluation. In addition, it is important to note that the presence of an eating disorder diagnosis cannot be predicted simply by assessing weight or body mass index (BMI). Data from the Collaborative Psychiatric Epidemiology Surveys of 2001 to 2003 showed an increase in the adjusted OR for any 12-month or lifetime eating disorder among overweight and obese men and women relative to normal weight individuals, with the greatest increase among those with Class III obesity (Duncan et al. 2017). Women with a low BMI also had an increased adjusted OR of any 12-month or lifetime eating disorder, but most underweight adults did not meet criteria for an eating disorder (Duncan et al. 2017). Furthermore, many individuals with an eating disorder do not receive help, even when this is broadly defined to include use of self-help or support groups. In the NESARC-III study, the prevalence of seeking any help was 34.5% for AN, 34.5% for BN, and 62.6% for BED, but there was substantial variability based on sex, race, and ethnicity (Coffino et al. 2019). In AN, the likelihood of seeking help was less in Hispanic as compared to non-Hispanic white individuals (adjusted OR 0.30), whereas in BED the likelihood of seeking help was less in men than in women (adjusted OR 0.29) and in non-Hispanic Black individuals (adjusted OR 0.25) and Hispanic individuals (adjusted OR 0.46) as compared to non-Hispanic white individuals (Coffino et al. 2019). Consequently, screening for eating disorder symptoms will be important to identify eating disorders and reduce disparities in receipt of treatment (Marques et al. 2011). Systematically collected prevalence data is less available in gender diverse individuals, but there appear to be higher rates of eating disorder diagnoses as well as weight and shape concerns among transgender and gender non-binary youth as compared to cisgender youth (Coelho et al. 2019; Grammer et al. 2021). Early recognition of an eating disorder is also essential because of the relatively young age of onset for eating disorders in many individuals. More specifically, the median age of onset in the NESARC-III study was 17.4 years in AN, 16.0 years in BN, and 21.1 years in BED (Udo and Grilo 2018), although some studies suggest that the median age of onset has been decreasing in recent years (Favaro et al. 2009; Galmiche et al. 2019). Mean ages of onset were slightly higher (Udo and Grilo 2018). A long duration of illness was common in the NESARC-III study with a median duration of the episode of illness of 4.9 years in AN, 8.0 years in BN, and 10.6 years in BED; mean episode durations were 11.4 years (SEM 0.4), 12.2 years (SEM 0.67), and 15.9 years (SEM 0.36), respectively (Udo and Grilo 2018). Psychosocial impairment was also common in individuals with an eating disorder, also highlighting the importance of early identification and intervention (Udo and Grilo 2018). For example, in individuals with AN, onset before 15 years of age was associated with greater illness severity, higher rates of lifetime psychiatric comorbidity, and more psychosocial difficulties (Grilo and Udo 2021).

Given the prevalence and typical age of onset of eating disorders in adolescence or young adulthood, the American Academy of Pediatrics recommends that pediatricians ask all preteens and adolescents about eating patterns and body image as well as screening for eating disorders and being alert to potential signs and symptoms of disordered eating (Hornberger et al. 2021).

Prevalence rates of eating disorders among patients receiving psychiatric treatment are likely to be considerably higher than in the general population, given the significant co-occurrence of eating disorders with other psychiatric disorders (see Statement 4). For example, one study of 260 individuals referred to a community-based mental health service for treatment of anxiety or depression noted ratings of eating problems (as measured by a score above 1 on the SCOFF) in 18.5% and a Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) eating disorder in 7.3% of the total sample (Fursland and Watson 2014).

Other individuals who appear to have an increased likelihood of an eating disorder include individuals who have experienced teasing or bullying (S. Day et al. 2022; Lie et al. 2019; Solmi et al. 2021) or childhood sexual abuse (Solmi et al. 2021), athletes (Eichstadt et al. 2020; Sundgot-Borgen and Torstveit 2004), and patients with celiac disease (Lebwohl et al. 2021; Mårild et al. 2017) or type 1 diabetes mellitus (Hall et al. 2021; Toni et al. 2017). Despite their prevalence and importance, eating disorders may remain undetected unless systematic screening occurs. Individuals with an eating disorder may not have insight into the presence of or severity of eating disorder signs and symptoms (Arbel et al. 2014; Gorwood et al. 2019; Konstantakopoulos et al. 2011, 2020). Males and individuals from racial, ethnic, and gender minorities may be less likely to be asked about the presence of eating disorder symptoms, due to a perception that eating disorders primarily affect certain demographic groups (e.g., young white females). However, eating disorders occur among all populations, age groups, genders, and cultural groups although clinical presentations may vary (Alegria et al. 2007; Cachelin and Striegel-Moore 2006; Hudson et al. 2007; Makino et al. 2004; Marques et al. 2011; Ricciardelli et al. 2007; Taylor et al. 2007; Udo and Grilo 2018). In fact, eating disorder diagnoses may be more frequent among transgender and gender non-binary individuals as compared to those who identify as cisgender (Coelho et al. 2019; Grammer et al. 2021). Clinicians may also erroneously overlook an eating disorder, including atypical AN, in individuals whose BMI is in the normal range or higher. To this end, the clinician should be sure to ask all patients about the presence of eating disorder symptoms as part of their standard psychiatric evaluation. For example, as part of the clinical interview, a patient could be asked “Have you or others worried that your preoccupation with weight, body shape, or food is excessive?” and “Have you felt that your weight or body shape excessively affect how you feel about yourself?” Screening questionnaires can also be used (see Table 2) although questions may need to be adapted based on the patient’s developmental and cognitive level. In terms of structured rating scales, the SCOFF questionnaire is most frequently used for screening purposes (Kutz et al. 2020; Morgan et al. 1999). It is a five-item tool that has been translated into multiple languages (e.g., Garcia et al. 2010; Garcia-Campayo et al. 2005; Richter et al. 2017), has been studied in adolescents as well as adults (Kutz et al. 2020), and can be used as a written self-report tool or with questions asked by the interviewer (Perry et al. 2002). The SCOFF has high sensitivity and specificity (Morgan et al. 1999), particularly for identifying the presence of AN or BN in young women with eating disorder symptoms who have two or more positive responses to the SCOFF questions (Kutz et al. 2020). In more diverse populations, the predictive value of the SCOFF is reduced (Kutz et al. 2020; Solmi et al. 2015). It may also have less ability to detect unspecified or other specified feeding or eating disorders, including atypical AN (Maguen et al. 2018). In addition, it was developed before criteria for BED were established and it performs less well in detecting the presence of BED (Kutz et al. 2020). For this reason, the SCOFF could be supplemented by adding the initial question from Binge

Eating Disorder Screener-7 (Herman et al. 2016), which is “During the last 3 months, did you have any episodes of excessive overeating (i.e., eating significantly more than what most people would eat in a similar period of time)?” A follow-up question could ask whether any such episodes were associated with a loss of control or inability to stop eating.

Other questionnaires, including the Screen for Disordered Eating (Maguen et al. 2018) and the Eating Disorder Screen for Primary Care (Cotton et al. 2003), have also been proposed as screening tools. Both have a greater sensitivity than the SCOFF (Cotton et al. 2003; Maguen et al. 2018) but these screening tools have not been well studied among representative patient populations.

Table 2. Screening questionnaires for eating disorders

SCOFF Questionnaire (Morgan et al. 1999)

- Do you make yourself Sick because you feel uncomfortably full?
- Do you worry you have lost Control over how much you eat?
- Have you recently lost >14 lbs (One stone) in a 3-month period?
- Do you believe yourself to be Fat when others say you are too thin?
- Would you say that Food dominates your life?

Screen for Disordered Eating (Maguen et al. 2018)

- Do you often feel the desire to eat when you are emotionally upset or stressed?
- Do you often feel that you can't control what or how much you eat?
- Do you sometimes make yourself throw up (vomit) to control your weight?
- Are you often preoccupied with a desire to be thinner?
- Do you believe yourself to be fat when others say you are too thin?

Eating Disorder Screen for Primary Care (Cotton et al. 2003)

- Are you satisfied with your eating patterns? (A “no” to this question is classified as an abnormal response).
- Do you ever eat in secret? (A “yes” to this and all other questions is classified as an abnormal response).
- Does your weight affect the way you feel about yourself?
- Have any members of your family suffered with an eating disorder?
- Do you currently suffer with or have you ever suffered in the past with an eating disorder?

Statement 2 – Initial Evaluation of Eating History

APA recommends (1C) that the initial evaluation of a patient with a possible eating disorder include assessment of

- **the patient’s height and weight history (e.g., maximum and minimum weight, recent weight changes);**

- **presence of, patterns in, and changes in restrictive eating, food avoidance, binge eating, and other eating-related behaviors (e.g., rumination, regurgitation, chewing and spitting);**
- **patterns and changes in food repertoire (e.g., breadth of food variety, narrowing or elimination of food groups);**
- **presence of, patterns in, and changes in compensatory and other weight control behaviors, including dietary restriction, compulsive or driven exercise, purging behaviors (e.g., laxative use, self-induced vomiting), and use of medication to manipulate weight;**
- **percentage of time preoccupied with food, weight, and body shape;**
- **prior treatment and response to treatment for an eating disorder;**
- **psychosocial impairment secondary to eating or body image concerns or behaviors; and**
- **family history of eating disorders, other psychiatric illnesses, and other medical conditions (e.g., obesity, inflammatory bowel disease, diabetes mellitus).**

Implementation

A careful assessment of the patient's history, symptoms, behaviors, and mental status is the first step in making a diagnosis of an eating disorder. This assessment can take several visits to complete and should also address the recommendations of the APA Practice Guidelines for the Psychiatric Evaluation of Adults (American Psychiatric Association 2016). Information can be obtained through face-to-face interviews, standardized assessment tools, physical exam, laboratory testing, and input from collateral sources such as family members, other health professionals, and medical records. For a variety of reasons (e.g., ambivalence about changing behavior, stigma, impaired insight), individuals with eating disorders may underreport symptoms (e.g., amount of food consumed, time spent exercising, episodes of binge eating and/or purging). Consequently, family members, partners, or others may observe changes in eating or other behaviors that the patient does not report. In the assessment of children and adolescents, it is essential to involve parents or guardians and, whenever appropriate, school personnel and health professionals who routinely work with the patient. Because many symptoms of eating disorders are cognitive in nature (e.g., fear of weight gain, overvaluation of weight and body shape) and depend on abstract reasoning ability, children may not have the capacity to articulate or endorse such symptoms and greater reliance on behavioral indicators may be necessary (Lock et al. 2015a). In addition, children and adolescents may exhibit different psychosocial changes than adults as their eating-related symptoms evolve (Hornberger et al. 2021; Lock et al. 2015a). Thus, as a complement to the psychosocial assessment conducted as part of any initial evaluation (American Psychiatric Association 2016), it can be helpful to identify changes in school performance, athletic pursuits, or other differences in psychosocial functioning when assessing children or adolescents with an eating disorder. Clinicians should also keep in mind that the clinical presentation of an eating disorder may be influenced by cultural considerations although individuals of all age groups, genders, and cultural groups may develop an eating disorder (George and Franko 2010; Hudson et al. 2007; Makino et al. 2004; Perez et al. 2016; Udo and Grilo 2018).

The initial assessment of a patient with a possible eating disorder should include a thorough history of the patient's height and weight, including lifetime maximum and minimum weights. Clinicians should assess the degree of recent weight loss because medical complications (e.g., refeeding syndrome) are

predicted by both the rapidity and total magnitude of weight loss (Garber et al. 2019; Whitelaw et al. 2018). Asking the patient about the weight that would be most comfortable for them can help align treatment-planning goals and provide additional useful information about the patient's degree of insight (e.g., if they select a desired weight that is significantly below the normal range). The clinician should also document any changes in adult height, as this may reflect bone loss resulting from chronic nutritional deficiency (Misra et al. 2016).

For children and adolescents, obtaining historical height and weight percentiles through growth curves or charts (either documented directly or obtained from the patient's pediatrician or family physician) may help to identify growth retardation associated with AN and is extremely important for characterizing changes in the patient's weight and height trajectory (Marion et al. 2020; Modan-Moses et al. 2003, 2021; Swenne and Thurfjell 2003). It can also be helpful to take a developmental history of feeding and eating, as described below for ARFID.

A thorough assessment of food and eating patterns, and any changes to patterns of eating behavior, is critical for evaluation of a possible eating disorder. Food repertoire changes (as reflected by typical daily diet habits) may include choosing foods with different (often lower) caloric density, changing to a specific type of diet (e.g., vegan/vegetarian, high protein/paleo, gluten free), reducing the variety of foods eaten, avoiding entire food groups (e.g., dairy) or macronutrients (e.g., fat, carbohydrates), or developing food intolerances, phobias, or aversions. Consequently, it is important to determine whether food ingestion is sufficient to sustain healthy growth and development, whether patterns of food restriction or avoidance may contribute to possible nutritional deficiencies, and whether significant changes in food preferences represent onset of health conditions other than eating disorders. It can also be helpful to ask about ways in which patients find eating behaviors to be helpful to them, including their motivations for food restriction or avoidance. Such inquiries can help patients to feel understood and can identify gaps in coping strategies that may warrant attention in treatment.

Individuals with eating disorders, particularly individuals with AN (Gianini et al. 2015), may exhibit abnormal mealtime behaviors, such as excessively tearing or cutting up foods, chewing each bite a certain number of times, delaying onset of eating, or avoiding particular combinations of foods. Other eating disorder-related behaviors may include chewing and spitting, rumination, or concern about gastrointestinal (GI) effects of eating (e.g., fullness, bloating, abdominal pain). Individuals with an eating disorder may also avoid social situations because of heightened sensory experiences of others' food, feelings of disgust at watching others eat, or self-consciousness about others commenting on their food choices.

Clinicians should inquire about the presence of binge eating, during which the individual experiences a sense of loss of control over eating and consumes an amount of food that is definitely larger than most people would eat under similar circumstances (American Psychiatric Association 2013). It is helpful to learn what occurs during a patient's typical binge, because their subjective description may provide additional insights into their eating behaviors. Patients should also be asked about purging behavior, which may involve self-induced vomiting or laxative or diuretic use, as well as the frequency of purging behavior, including details on the type and quantity of laxatives or diuretics used and whether there

have been recent changes in the pattern and frequency of purging behavior. In addition, clinicians should inquire about compensatory behaviors, such as the use of medication to manipulate weight (e.g., diuretics, caffeine, stimulants, diet pills, nutritional or herbal supplements, muscle building supplements, insulin omission or dose manipulation, thyroid hormones) or excessive exercise. Indicators of compensatory or excessive exercise may include an unwillingness or inability to adapt one's exercise regimen when injured and rigidity and/or preoccupation with one's exercise routine to the extent that it contributes to social avoidance (e.g., being so concerned with waking up to exercise that one does not go out with friends in the evening).

Individuals with a possible eating disorder should be asked about the amount of the time they spend preoccupied with thoughts about eating, weight, or body shape. Although not all individuals with an eating disorder will report these features, disturbance in the experience of the body and/or overvaluation of weight and body shape may be reflected in negative subjective evaluations of one's appearance (e.g., feelings of self-disgust towards one's body), body dissatisfaction (including concern with muscle definition or specific body areas), difficulties trusting perceptions of interoceptive and proprioceptive sensations (e.g., not trusting experiences of hunger as real, concerns about GI symptoms), behavioral rituals (e.g., frequent weighing, checking size of body areas), and cognitive preoccupations (e.g., fear of gaining weight, anxiety about eating, disgust with food, concerns about eating in social situations). In men, there can be a greater focus on muscularity rather than weight per se (Lavender et al. 2017). Bullying and cyberbullying are common and may contribute to body dissatisfaction, among other psychological effects (S. Day et al. 2022; Lie et al. 2019, 2021a, 2021b; Solmi et al. 2021). In addition, it can often be helpful to ask about social media interactions or peer groups influences that affect patient's views of eating, weight, or body shape (Padín et al. 2021; Scott et al. 2019).

In transgender and gender non-binary youth, gender-affirming motivations can lead to dietary restriction or other compensatory behaviors to prevent puberty onset or progression (Avila et al. 2019; Coelho et al. 2019). It is also important to learn whether the patient has had gender-affirming medical interventions, including hormone therapy or surgical interventions, and their association with changes in eating disorder symptoms (Jones et al. 2018; Nowaskie et al. 2021; Uniacke et al. 2021).

Gathering information on prior treatment and treatment response can be helpful in conceptualizing the severity of illness, course of illness, and in formulating the initial treatment plan. In addition to treatment settings and levels of care, clinicians should inquire about prior experience with, and response to, both psychotherapeutic and pharmacological interventions. Premorbid personality traits (e.g., perfectionism, conscientiousness, and obsessionality in AN; impulsivity with binge eating or purging behavior) may influence symptom severity, treatment planning, and outcomes for individuals with an eating disorder (Dahlenburg et al. 2019; Dufresne et al. 2020; Hower et al. 2021; Legg and Turner 2021; Lilenfeld et al. 2006; Waxman 2009).

The initial assessment should also include a thorough family history. Patients should be asked about a family history of eating disorders, binge eating, dieting or restrictive eating, obesity, or other weight-related issues as well as about family and cultural attitudes towards eating, exercise, and appearance.

Clinicians should also inquire about family history of conditions that may be common in individuals with eating disorders, such as diabetes mellitus, inflammatory bowel disease, and other psychiatric disorders including depression, anxiety, OCD, and substance use disorders (Hudson et al. 2007). Although asking about a family history of suicide is important in every psychiatric evaluation, it is particularly relevant when evaluating a patient with a possible eating disorder given the elevated rates of suicide in this population (Arcelus et al. 2011). When assessing adolescents, clinicians should also consider the role of family interactions and attitudes (Blissett and Haycraft 2011; Lydecker and Grilo 2016), which may require attention as part of the treatment plan.

A patient's degree of insight and capacity to make a reasoned choice about the need for treatment should be assessed, as insight and judgment may be impaired by a constellation of factors, including the effects of restrictive eating on cognition. Eating disorders, especially AN, are also characterized by ambivalence towards treatment because interventions that target disordered eating and weight control behaviors are anxiety inducing. Patients who have experienced frequent relapses or an extended history of unsuccessful treatment may feel hopeless about the prospects of improvement. For adolescents, the ability to assess future risk depends on the patient's level of cognitive development and can complicate assessments of insight and capacity.

Avoidant/Restrictive Food Intake Disorder

In addition to aspects of the initial evaluation described above for any eating disorder, several aspects of the history are particularly relevant to the identification of ARFID. ARFID was first included in DSM-5 (American Psychiatric Association 2013) and consists of an eating or feeding disturbance associated with avoidance or restriction of food intake, as the name implies. There are diverse and overlapping motivations that contribute to food avoidance/restriction but examples mentioned in the DSM-5 include "an apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; [or] concern about aversive consequences of eating." Although these features have been the most investigated, these examples should not preclude a clinician from exploring unique contributions to food avoidance/restriction in an individual patient. In addition, at least one of the following features must be present: "Significant weight loss (or failure to achieve expected weight gain or faltering growth in children), significant nutritional deficiency, dependence on enteral feeding or oral nutritional supplements, [or] marked interference with psychosocial functioning." To fulfill the diagnostic criteria for ARFID, the eating and feeding disturbances cannot be the result of a psychiatric condition (e.g., AN, BN), must exceed the impact on eating/feeding contributed by another medical condition (e.g., GI disease), and cannot be a reflection of culturally related eating practices or food scarcity (American Psychiatric Association 2013).

If ARFID is suspected, it is especially helpful to take a developmental history of feeding and eating, which may include early problems with breast or formula feeding; ease of transition to solid foods; the presence of oral-motor difficulties that complicated feeding; and food intolerances or allergies that may contribute to early aversive conditioning of eating. Medical conditions such as gastroesophageal reflux disease, eosinophilic esophagitis, and inflammatory bowel disease can also contribute to eating and feeding difficulties (A.S. Day et al. 2022; Fink et al. 2022; Gibson et al. 2021; Murray et al. 2021; Oliveira

2021; Peters et al. 2022; Robson et al. 2019; Yelencich et al. 2021). A comprehensive developmental history may help parents feel that longstanding difficulties are appreciated by medical professionals. Furthermore, finding a sustained pattern of eating problems can alert the clinician to possible mechanical oral motor problems that have gone undetected.

Assessment of nutritional status and examination of growth trajectories are also important for individuals with possible ARFID (Eddy et al. 2019). In addition to changes in weight or slowing of growth, some youth with ARFID can have consistently low height and weight percentiles as well as associated nutritional deficiencies (Feillet et al. 2019; Schmidt et al. 2021; Yule et al. 2021).

With ARFID, patterns of food avoidance are often chronic rather than reflecting a recent change. In other instances, individuals may have experienced an acute GI or other health condition, but disordered eating patterns persist despite resolution of the original problem. Thus, it can be helpful to ask about patient's motivations for food avoidance and the ways in which food avoidance is helpful to them. For example, food avoidance in individuals with ARFID can be motivated by a fear of aversive consequences of eating such as choking, gagging, allergic reactions, pain, or GI effects (e.g., nausea, vomiting, bloating, constipation, diarrhea). In addition, sensory sensitivity to smells, appearance, texture, taste, and/or temperature of food may reduce the willingness and ability to try new or unfamiliar foods, decrease dietary variety in individuals' food repertoire, and even interfere with willingness to eat familiar foods that are not prepared in a precise fashion. Unlike in AN or BN, individuals with ARFID will often prefer bland starchy foods or foods with higher calorie density yet their total calorie intake is insufficient for weight gain. For some individuals with ARFID, the introduction of a new taste or an unexpected experience with a familiar taste can result in gagging and subsequent avoidance. As with other eating disorders, individuals with ARFID may be uncomfortable with or unable to eat around other people. Meals may terminate prematurely due to low appetitive drive or to avoid eating unfamiliar food, minimize uncomfortable physical sensations (e.g., gut fullness), or escape from uncomfortable social eating situations. They may also feel disgust at watching others eat or experience heightened sensory experiences or disgust towards the smell of others' food. Importantly, patients with ARFID vary in their clinical presentations (Katzman et al. 2021; Norris et al. 2018) and understanding the patient's experiences with food can help in establishing rapport as well as serving as a starting point for treatment.

Statement 3 – Quantitative Measures

APA recommends (1C) that the initial psychiatric evaluation of a patient with a possible eating disorder include weighing the patient and quantifying eating and weight control behaviors (e.g., frequency, intensity, or time spent on dietary restriction, binge eating, purging, exercise, and other compensatory behaviors).

Implementation

In the assessment of a patient with a possible eating disorder, obtaining the patient's weight and quantifying recent or current eating and weight control behaviors can help detect and determine the severity of eating disorder behaviors and associated symptoms. Height should also be obtained as described in Statement 6.

APA's Practice Guidelines for the Psychiatric Evaluation of Adults, 3rd edition (American Psychiatric Association 2016) provides a general description of the use of quantitative measures, which can include use of formal rating scales or quantifying the number or characteristics of relevant behaviors. The intent of using a quantitative measure is not to establish a diagnosis but rather to complement other aspects of the screening and assessment process. Depending on the measure, it can aid in treatment planning by providing a structured replicable way to document the patient's baseline symptoms. It can also help to determine which symptoms should be the target of intervention based on factors such as frequency of occurrence, magnitude, associated distress to the patient, and potential for associated harm to the patient or others. On the other hand, it is important to be mindful of the fact that some individuals will under-report symptoms, particularly if they do not feel comfortable with the therapeutic relationship, are not motivated for treatment, lack awareness of having a disorder, wish to avoid disappointing the clinician, feel shame about their behavior, or have experienced prior bullying or criticism for their behavior, weight, or appearance.

As treatment proceeds, use of quantitative measures will often allow more precise tracking of whether pharmacological, psychotherapeutic, and other nonpharmacological treatments are having their intended effects or whether a shift in the treatment plan is needed. Standardized assessments can be useful for demonstrating improvement to patients who may feel unmotivated or disappointed with their response to treatment. They can also provide helpful information about the actual effects of prior treatments. Again, however, under-reporting may occur, or rates of symptom reporting may increase as motivation to change or insight improve with treatment. In addition, patients' ratings can be compared with family members' impressions of treatment effects to clarify the longitudinal course of the patient's illness.

One approach to quantitative assessment is to focus on measures of eating disorder severity as described in DSM-5 criteria (i.e., weight loss for AN, episodes of inappropriate compensatory behaviors per week for BN, binge-eating episodes per week for BED). In addition to behavior frequency, measures of behavioral intensity or time spent on dietary restriction, binge eating, purging, exercise, and other compensatory behaviors can also be obtained. Weight is a key measure in individuals with an eating disorder and should be obtained with patients dressed in light clothing and with shoes removed. Whether the measured weight should be shared with the patient or not is unclear and may depend upon the treatment approach being used as well as patient-specific considerations.

Although use of an eating disorder rating scale is not necessary to quantify eating and weight control behaviors, a number of patient- and clinician-rated scales and screening tools for eating disorders have been developed and validated (Schaefer et al. 2021). If a scale is used, the choice of a scale should consider the age of the patient, clinical setting, time available for administration, and therapeutic objective (i.e., screening vs. diagnosis vs. ongoing monitoring). As discussed in Statement 1, the SCOFF questionnaire is a five-item tool for eating disorders which has high sensitivity and specificity for identifying AN and BN when screening for an eating disorder (Kutz et al. 2020; Morgan et al. 1999). The Eating Disorder Assessment for DSM-5 (EDA-5) is a freely available clinician-rated, semi-structured interview that shows good reliability for diagnosis of AN, BN, and BED in adolescents and adults (www.eda5.org; Sysko et al. 2015) It also has a youth version available for ages 8-14 as well as versions

in Spanish and other languages. The Eating Disorders Examination Questionnaire (EDE-Q) is a relatively brief, freely available, and well-validated self-report measure that is adapted from the semi-structured Eating Disorders Examination (EDE) interview (Fairburn 2008). It has been validated in Spanish (Grilo et al. 2012a; Peláez-Fernández et al. 2012) as well as multiple other languages (Lichtenstein et al. 2021). It may have lower validity in men (Smith et al. 2017) but it appears to be a useful self-report measure in transgender and gender diverse individuals, although further validation is warranted (Avila et al. 2019; Duffy et al. 2021; Nagata et al. 2020a, 2020c; Nowaskie et al. 2021). The EDE-Q is reliable in adults as well as in adolescents (Mond et al. 2004; Schaefer et al. 2018) and a children’s version of the EDE-Q has been validated for use in 7- to 18-year-olds (Kliem et al. 2017). Another scale developed for children and adolescents, ages 8 to 14, is the Kids’ Eating Disorders Survey (Brewerton 2001; Childress et al. 1993). For assessing longitudinal changes in eating related cognitions and behaviors, the Eating Disorders 15 (ED-15) has been developed (Tatham et al. 2015) and has a corresponding version for youth (Accurso and Waller 2021a) and for reporting by parents or caregivers (Accurso and Waller 2021b). The Clinical Impairment Assessment (CIA) is a self-report measure that is available in English and in Spanish to measure psychosocial impairment associated with an eating disorder (Bohn et al. 2008; Clinical Impairment Assessment Questionnaire (<https://www.psytoolkit.org/survey-library/eating-cia.html>); Jenkins 2013; Maraldo et al. 2021; Martín et al. 2015; Raykos et al. 2019), although different thresholds for total scores may be needed in men and women (Richson et al. 2021).

For assessment of other disorders related to eating, the Eating Disorders in Youth Questionnaire has been validated for use in 8- to 13-year-olds (Goldberg et al. 2020) and the Nine Item Avoidant/Restrictive Food Intake Disorder Screen (Zickgraf and Ellis 2018) has been validated for use in adults. The Pica, ARFID, and Rumination Disorder Interview (PARDI; Bryant-Waugh et al. 2019) is a multi-informant, semi-structured instrument that is used in research; however, clinicians may benefit from reviewing the items on the PARDI to learn about clinical features of these disorders.

Statement 4 – Identification of Co-Occurring Conditions

APA recommends (1C) that the initial psychiatric evaluation of a patient with a possible eating disorder identify co-occurring health conditions, including co-occurring psychiatric disorders.

Implementation

Co-occurring health conditions are important to identify as part of the evaluation of a patient with a possible eating disorder. Some co-occurring health conditions may be a sequela of an eating disorder (e.g., gastroesophageal reflux disease, irritable bowel syndrome, gastroparesis, other GI motility disorders), whereas others (e.g., diabetes mellitus, celiac disease, inflammatory bowel disease) can place restrictions on eating behaviors and dietary variety and can exacerbate or increase the likelihood of developing an eating disorder (Nikniaz et al. 2021; Peters et al. 2022; Young et al. 2013). Even when a health condition is independent of an eating disorder, it can influence the choice of treatment or a need for medical stabilization.

Identification of pre-existing or co-occurring psychiatric conditions and obtaining information on their onset and course is also important for treatment planning. When another psychiatric condition is present, outcomes are worse (Franko et al. 2018; Keshishian et al. 2019; Lydecker and Grilo 2021; Riquin

et al. 2021) and mortality is greater (Himmerich et al. 2019a, 2019b; Kask et al. 2016, 2017). Thus, it is essential to provide care for both the eating disorder and other psychiatric conditions. The relationship between eating disorders and psychiatric symptoms is complex; careful clinical assessment is needed to discern whether symptoms of depression, anxiety, or obsessionality reflect an independent co-occurring disorder or have developed as a result of the eating disorder. For example, starvation has been shown to lead to depressive symptoms, including low mood, impaired concentration, low energy, and sleep disturbance, as well as increased anxiety and obsessionality (Keys et al. 1950). On the other hand, eating disorders frequently co-occur with other psychiatric disorders, particularly depression, anxiety, OCD, PTSD, autism spectrum disorder, substance use disorders, and personality disorders (Hudson et al. 2007; Steinhausen et al. 2021). Individuals with an eating disorder also have a greater likelihood of ADHD than individuals without an eating disorder (Brewerton and Duncan 2016; Nazar et al. 2016). Physical restlessness is commonly observed in low-weight patients with AN and can manifest as persistent fidgeting or refusal to sit for extended periods of time, independent of the presence of ADHD.

A history of trauma may also increase risk for development of disordered eating behaviors (Emery et al. 2021; Russon et al. 2019) or an eating disorder. Reports of prior sexual trauma are elevated in patients with eating disorders (Lie et al. 2021a; Madowitz et al. 2015; Solmi et al. 2021), but rates of physical or emotional abuse or neglect are also increased (Afifi et al. 2017; Coffino et al. 2020; Hazzard et al. 2019; Kimber et al. 2017; Lie et al. 2021a; Molendijk et al. 2017; Pignatelli et al. 2017). In addition, many individuals who have an eating disorder will have experienced bullying or criticism of their weight or appearance (S. Day et al. 2022; Lie et al. 2019, 2021b; Solmi et al. 2021). Consequently, all patients with a possible eating disorder should be asked about a history of trauma; physical, emotional, or sexual abuse; bullying (including cyberbullying); or neglect (including food insecurity), and assessed for symptoms related to PTSD (Ferrell et al. 2020).

Suicide is the second leading cause of death among individuals with AN, and rates of suicidal behavior are elevated in individuals with BN and BED (Smith et al. 2018). The initial exam should include a thorough assessment of suicide risk, including current suicidal ideas, plans, or intentions, prior suicidal plans or attempts, and the presence of non-suicidal self-injury (see Guideline III, "Assessment of Suicide Risk," in the APA Practice Guidelines for the Psychiatric Evaluation of Adults; American Psychiatric Association 2016). Such assessments can be conducted through clinical interview, mental status examination, or use of quantitative measures.

For any patient who is undergoing an initial psychiatric evaluation, it is important to assess the patient's use of caffeine, tobacco, alcohol, cannabinoids, and other substances, as well as any misuse of prescribed or over-the-counter (OTC) medications or supplements (see Guideline II, "Substance Use Assessment," in the APA Practice Guidelines for the Psychiatric Evaluation of Adults; American Psychiatric Association 2016). Substance use disorders are frequently comorbid with eating disorders (Bahji et al. 2019; Harrop and Marlatt 2010; Javaras et al. 2008; Krug et al. 2008), thus a comprehensive substance use history is essential in a patient with a potential eating disorder. Cigarette smoking (including electronic cigarettes or vaping) can be used to suppress appetite (Mason et al. 2021; Naveed et al. 2021) and smoking can affect the rate of weight restoration during treatment (Van Wymelbeke et al. 2004). A specific inquiry should also be made about use or misuse of prescribed or non-prescribed

medications that suppress appetite (e.g., OTC weight loss products, stimulants) or enhance muscularity (e.g., supplements, androgens).

Among individuals with ARFID, comorbidity with GI disease (e.g., achalasia, eosinophilic esophagitis, celiac disease, inflammatory bowel disease) is common (A.S. Day et al. 2022; Fink et al. 2022; Gibson et al. 2021; Murray et al. 2021; Peters et al. 2022; Robson et al. 2019; Yelencich et al. 2021) and evaluation for GI abnormalities may be warranted, particularly in individuals whose symptoms are not lifelong. Autism spectrum disorder and ADHD also appear to be more frequent in individuals with ARFID (Farag et al. 2022; Keery et al. 2019; Yule et al. 2021), emphasizing the importance of taking a history for developmental, learning, and sensory issues. Anxiety symptoms and diagnoses (Fisher et al. 2014; Kambanis et al. 2020; Katzman et al. 2021; Keery et al. 2019; Norris et al. 2014, 2021) and depressive symptoms (Katzman et al. 2021) are also reported frequently by individuals with ARFID. More detailed recommendations about screening for co-occurring conditions can be found in the APA Practice Guidelines for the Psychiatric Evaluation of Adults (American Psychiatric Association 2016).

Statement 5 – Initial Review of Systems

APA recommends (1C) that the initial psychiatric evaluation of a patient with a possible eating disorder include a comprehensive review of systems.

Implementation

The effects of malnutrition, binge eating, and purging can affect every organ system in the body (Academy for Eating Disorders Medical Care Standards Committee 2021; Cass et al. 2020; Sachs and Mehler 2016). In addition to the recommendations for a review of systems as found in the APA Practice Guidelines for the Psychiatric Evaluation of Adults (American Psychiatric Association 2016), a focus on issues that are common in patients with eating disorders can help to identify pre-existing or co-occurring conditions (as discussed in Statement 4) as well as eliciting symptoms of concern to the patient (see Table 3). Although some of these symptoms or conditions may improve or resolve with treatment of the eating disorder, others will require additional evaluation and treatment in addition to treatment of the eating disorder.

Patients with eating disorders commonly report symptoms such as abdominal discomfort or pain with eating, constipation, early satiety or fullness, bloating, nausea, and gastroesophageal reflux (Riedlinger et al. 2020). These symptoms do not necessarily reflect evidence of a structural GI disorder but may be a consequence of starvation and disordered eating patterns that result in functional GI disorders and problems with GI motility (e.g. delayed gastric emptying (Hetterich et al. 2019)). Patients who induce vomiting should be asked about hematemesis.

Cardiovascular issues are also common as described further below in Statement 8. Changes in cardiac rhythm include bradycardia whereas other arrhythmias can present with palpitations (Giovinazzo et al. 2019; Sachs et al. 2016). Low blood pressure, often in association with orthostatic hypotension, can result in dizziness on standing or syncope. Rates of mitral valve prolapse, pericardial effusion, and myocardial atrophy also appear to be increased in individuals with AN (Giovinazzo et al. 2019; Olivares et al. 2005; Sachs et al. 2016; Smythe et al. 2021).

It is similarly important to inquire about past or current neurological signs or symptoms, such as seizures and headache (including migraine headaches). Osteoporosis and fractures (including stress fractures) occur at an increased frequency in individuals with an eating disorder (Frølich et al. 2020; Robinson et al. 2016, 2019; Solmi et al. 2016) and should also be identified as part of the review of systems.

Assessment should include taking a menstrual history, when relevant, including age of menarche and date of last menstrual period. It is also important to ask about use of oral contraceptives or other hormonal therapies that may affect menses. Menstrual cycle abnormalities, including irregular periods and amenorrhea, occur in AN (Misra and Klibanski 2014), atypical AN (Garber et al. 2019; Lebow et al. 2015; Rastogi et al. 2020), BN (Gendall et al. 2000), and BED (Olguin et al. 2017). In addition, polycystic ovary syndrome also appears to be associated with an increased likelihood of having disordered eating (Pirotta et al. 2019) or an eating disorder, particularly BN or BED (Thannickal et al. 2020). Dietary restriction with significant weight reduction or a low BMI can also be associated with increased rates of pregnancy complications and neonatal difficulties. Patients should be asked about sexual (e.g., decrease in libido, erectile dysfunction) and reproductive (e.g., infertility, obstetrical complications) issues that may arise in the setting of altered hypothalamic-pituitary-gonadal axis functioning.

Table 3. Signs and symptoms of eating disorders

Organ System	Symptom/Sign ¹	
	Related to nutritional restriction	Related to purging
General	<i>Low weight, cachexia</i>	
General	Fatigue	
General	<i>Weakness</i>	<i>Weakness</i>
General	<i>Dehydration</i>	
General	Cold intolerance, <i>low body temperature</i>	
General	Hot flashes, sweating	
Nervous system	Anxiety, depression, or irritability	Anxiety, depression, or irritability
Nervous system	Apathy	Apathy
Nervous system	Poor concentration	Poor concentration
Nervous system	Headache	Headache
Nervous system	<i>Seizures</i> (in severe cases)	<i>Seizures</i> (in severe cases)
Nervous system		Paresthesia (due to electrolyte abnormalities)
Nervous system	<i>Peripheral polyneuropathy</i> (in severe cases)	
Oropharyngeal	Dysphagia	
Oropharyngeal		<i>Dental enamel erosion and decay</i>
Oropharyngeal		<i>Enlarged salivary glands</i>
Oropharyngeal		Pharyngeal pain
Oropharyngeal		<i>Palatal scratches, erythema, or petechiae</i>
Gastrointestinal	Abdominal discomfort	Abdominal discomfort
Gastrointestinal	Constipation	Constipation
Gastrointestinal		Diarrhea (due to laxative use)

Organ System	Symptom/ <i>Sign</i> ¹ Related to nutritional restriction	Related to purging
Gastrointestinal	Nausea	
Gastrointestinal	Early satiety	
Gastrointestinal	<i>Abdominal distention, bloating</i>	Abdominal distention, bloating
Gastrointestinal		Heartburn, <i>gastroesophageal erosions or inflammation</i>
Gastrointestinal		<i>Vomiting, possibly blood-streaked</i>
Gastrointestinal		<i>Rectal prolapse</i>
Cardiovascular	<i>Dizziness, faintness, orthostatic hypotension</i>	<i>Dizziness, faintness, orthostatic hypotension</i>
Cardiovascular	<i>Palpitations, arrhythmias</i>	<i>Palpitations, arrhythmias</i>
Cardiovascular	<i>Bradycardia</i>	
Cardiovascular	<i>Weak irregular pulse</i>	
Cardiovascular	<i>Cold extremities, acrocyanosis</i>	
Cardiovascular	<i>Chest pain</i>	
Cardiovascular	<i>Dyspnea</i>	
Reproductive/Endocrine	<i>Slowing of growth (in children or adolescents)</i>	<i>Slowing of growth (in children or adolescents)</i>
Reproductive/Endocrine	<i>Arrested development of secondary sex characteristics</i>	<i>Arrested development of secondary sex characteristics</i>
Reproductive/Endocrine	Low libido	Low libido
Reproductive/Endocrine	<i>Fertility problems</i>	
Reproductive/Endocrine	<i>Oligomenorrhea</i>	<i>Oligomenorrhea</i>
Reproductive/Endocrine	<i>Primary or secondary amenorrhea</i>	
Musculoskeletal	<i>Proximal muscle weakness, wasting, or atrophy</i>	
Musculoskeletal		Muscle cramping
Musculoskeletal	Bone pain ²	Bone pain ²
Musculoskeletal	<i>Stress fractures</i> ²	<i>Stress fractures</i> ²
Musculoskeletal	<i>Slowed growth (relative to expected)</i> ²	<i>Slowed growth (relative to expected)</i> ²
Dermatological	<i>Dry, yellow skin</i>	
Dermatological	<i>Change in hair including hair loss and dry and brittle hair</i>	
Dermatological	<i>Lanugo</i>	
Dermatological		<i>Scarring on dorsum of hand (Russell's sign)</i>
Dermatological	<i>Poor skin turgor</i>	<i>Poor skin turgor</i>
Dermatological	<i>Pitting edema (with refeeding)</i>	<i>Pitting edema</i>

¹ Symptoms are in regular font; signs are in italic font

² Risk of skeletal effects is in individuals with previous low weight and menstrual irregularity or amenorrhea

Statement 6 – Initial Physical Examination

APA recommends (1C) that the initial physical examination of a patient with a possible eating disorder include assessment of vital signs, including temperature, resting heart rate, blood pressure, orthostatic pulse, and orthostatic blood pressure; height, weight, and BMI (or percent median BMI, BMI percentile, or BMI Z-score for children and adolescents); and physical appearance, including signs of malnutrition or purging behaviors.

Implementation

A complete physical examination is strongly recommended in addition to assessment of vital signs and physical appearance. As described in the APA Practice Guidelines for the Psychiatric Evaluation of Adults (American Psychiatric Association 2016), it may be performed by a psychiatrist, another physician, or a medically trained clinician but is best performed by a clinician familiar with common findings in patients with eating disorders. Diagnosis should rely upon a comprehensive assessment of psychiatric and medical status and history as a physical examination with normal results may not exclude an eating disorder. Furthermore, physical findings such as low blood pressure or low resting heart rate, which can be seen in healthy individuals, may not be a marker of health in an individual with other evidence of an eating disorder. Following the initial evaluation, the frequency of physical assessment will depend on the individual's clinical status.

Table 3 describes physical signs that may occur in individuals with an eating disorder. The physical examination should give particular attention to vital signs, as abnormalities may indicate medical instability, which would warrant a higher level of care (see Statement 9). Abnormalities of potential concern include heart rate < 50 beats per minute, systolic blood pressure < 90 mmHg, or temperature less than 36°C (96.8 F). A sustained decrease of systolic blood pressure of at least 20 mmHg or pulse increases of more than 30 bpm in adults or more than 40 bpm in adolescents aged 12 to 19 years within three minutes from lying to standing may also indicate medical instability (Freeman et al. 2011; Raj et al. 2020; Singer et al., 2012). All patients should be evaluated for evidence of self-injurious behaviors, as individuals with eating disorders experience elevated rates of self-injury compared to the general population (Cucchi et al. 2016; Forrest et al. 2021; Kostro et al. 2014). Physical examination of children and adolescents with a possible eating disorder should also include assessment of growth and pubertal development (e.g., as indicated by the Tanner stage of sexual maturity).

Height, weight, and BMI should be evaluated initially with weight obtained, ideally, at all visits (see https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html). The frequency at which the patient's height needs to be measured will vary, with adults requiring height determinations less frequently than adolescents. Some patients may prefer to be weighed in a blinded fashion (i.e., turn around to remain unaware of their weight; Foreich et al. 2020; Wagner et al. 2022). The decision to weigh patients in this manner as compared to an open fashion is controversial and often depends on the philosophy of the eating disorders treatment program. Other factors that may influence the choice of blinded as compared to open weighing can include the type of setting (inpatient vs. outpatient), the type of psychotherapy (e.g., FBT, CBT), the frequency of weight checks, and patient

characteristics or preferences (Forbush et al. 2015). Even when weighing does occur in a blinded fashion, patients may become aware of their weight through electronic health record notes.

When interpreting a patient's BMI and related measures, it is important to be aware of the limitations of this parameter. In particular, it does not distinguish between fat and muscle mass, reflect differences in fat distribution, or incorporate variations in BMI due to age, sex, race, or ethnicity (Kesztyüs et al. 2021; Lee et al. 2017; Liu et al. 2021; Tinsley et al. 2020). Nevertheless, it is readily measurable and in frequent clinical and research use. In children and adolescents, percent median BMI (current BMI/50th percentile BMI for age and sex x 100; <https://www.cdc.gov/healthyweight/bmi/calculator.html>), BMI percentile, or BMI Z-score should be determined (Golden et al. 2015a). Longitudinal growth charts should be documented directly or obtained from the patient's pediatrician or family physician to assess for deviations from individual growth trajectories and to guide determination of a target weight. Such an approach can also help to identify growth retardation associated with AN (Marion et al. 2020; Modan-Moses et al. 2003, 2021; Swenne and Thurfjell 2003), weight suppression in association with atypical AN, or consistently low height and weight percentiles as can be seen in some youth with ARFID (Yule et al. 2021).

Patients should be evaluated for physical manifestations of malnutrition, which may include proximal muscle and temporal wasting, ankle and pedal edema, and dermatological changes such as lanugo (fine downy hair), hair loss, and dry skin. In addition, some individuals with severe dietary restriction may become immunocompromised (Brown et al. 2008). Signs of malnutrition improve with normalization of eating behavior and weight; targeted treatment (e.g., use of diuretics for malnutrition-related peripheral edema) is rarely needed for these signs.

Vitamin deficiencies (e.g., vitamin A, thiamine, vitamin B-12, vitamin C, vitamin D, zinc) can also develop due to dietary restrictions in individuals with AN, atypical AN, or ARFID (Achamrah et al. 2017; Hanachi et al. 2019; Yule et al. 2021). Risk of vitamin deficiencies can be compounded by co-occurring conditions (e.g., thiamine deficiency with co-occurring alcohol use disorder). Physical findings may include angular stomatitis, glossitis, bleeding gums, and dermatologic, ocular, or neurological findings (Suter and Russell 2018).

Clinicians should also assess for any signs of purging, such as parotid gland enlargement, dental enamel erosion, and calluses on the knuckles or dorsum of the hand (Russell's sign) from scraping against the teeth during attempts to induce vomiting. If purging behavior is present, referral for a dental evaluation is indicated. Although seemingly paradoxical, patients should be instructed not to brush teeth after vomiting (Meurman and ten Cate 1996; Otsu et al. 2014). Oral rinsing with water after vomiting and avoiding ingestion of carbonated beverages or citrus fruits may also help to reduce effects on dentition (Otsu et al. 2014).

Statement 7 – Initial Laboratory Assessment

APA recommends (1C) that the laboratory assessment of a patient with a possible eating disorder include a complete blood count and a comprehensive metabolic panel, including electrolytes, liver enzymes, and renal function tests.

Implementation

Laboratory assessments can be helpful in the initial assessment of a patient with a possible eating disorder in detecting abnormalities that may require intervention (see Table 4), including a higher level of care. Abnormalities are more frequent in individuals with severe or chronic illness, frequent purging behaviors, or rapid recent weight loss, independent of the individual's current weight. On the other hand, abnormal laboratory values do not occur in all individuals with an eating disorder and normal laboratory values do not rule out a potential eating disorder.

Patients with eating disorders, particularly those who are at low weight, may present with anemia, leukopenia, and/or thrombocytopenia (Cleary et al. 2010; Hütter et al. 2009; Peebles and Sieke 2019). In individuals who purge or restrict fluids, hemoconcentration resulting from dehydration may initially mask anemia. These hematological abnormalities are typically reversible with restoration to a normal weight. Individuals with AN may show evidence of hepatic dysfunction (Rosen et al. 2016), reflected by elevations in liver enzymes (alanine aminotransferase [ALT] and aspartate aminotransferase [AST]). A rise in aminotransferases may also occur in conjunction with renourishment due to hepatic steatosis (Rosen et al. 2016). Patients with AN may also develop hypoglycemia in the setting of reduced glycogen stores and impaired gluconeogenesis (Gaudiani et al. 2012). In addition, postprandial hypoglycemia can occur in individuals with a low BMI (Hart et al. 2011; Kinzig et al. 2007). Electrolyte disturbances are common and can result from restrictive eating, purging, or laxative or diuretic use. Individuals who vomit regularly can develop hypokalemia and hypochloremic metabolic alkalosis, whereas patients who misuse laxatives may develop a hyperchloremic metabolic acidosis (Peebles and Sieke 2019). Though less common, patients with eating disorders who drink excessive amounts of water may present with hyponatremia, which poses a risk for seizures (Miller et al. 2005). The risk of hyponatremia may also be increased by concurrent use of medications that can cause hyponatremia (e.g., SSRIs). Measurement of urinary specific gravity can help to identify individuals who are consuming excess water, or conversely, are at risk of dehydration. When volume depletion is severe, such as in individuals with AN who also purge, increases in blood urea nitrogen (BUN) and creatinine can be seen and rarely, renal failure may occur.

Table 4. Laboratory abnormalities related to nutritional restriction or purging behaviors

	Organ system	Test	Related to nutritional restriction	Related to purging
Recommended	Cardiovascular	ECG	Bradycardia or arrhythmias, QTc prolongation	Increased P-wave amplitude and duration, increased PR interval, widened QRS complex, QTc prolongation, ST depression, T-wave inversion or flattening, U waves, supraventricular or ventricular tachyarrhythmias
Recommended	Metabolic	Serum electrolytes	Hypokalemia, hyponatremia, hypomagnesemia, hypophosphatemia (especially on refeeding)	Hypokalemia, hyponatremia, hypochloremia, hypomagnesemia, hypophosphatemia, metabolic acidosis
Recommended	Gastrointestinal	Lipid panel	Hypercholesterolemia	
		Serum glucose	Low blood sugar	
		Liver function and associated tests	Elevated liver function tests	
Recommended	Genitourinary	Renal function tests	Increased BUN, decreased GFR, decreased Cr because of low lean body mass (normal creatinine may indicate azotemia), renal failure (rare)	Increased BUN and Cr, renal failure (rare)
Based on history or exam	Genitourinary	Urinalysis	Urinary specific gravity abnormalities	Urinary specific gravity abnormalities, high pH
Based on history or exam	Reproductive	Serum gonadotropins and sex hormones	Decreased serum estrogen or serum testosterone; prepubertal patterns of luteinizing hormone, follicle stimulating hormone secretion	May be hypoestrogenemic, if menstrual irregularities are present
Based on history or exam	Skeletal	Bone densitometry (DXA scan)	Reduced BMD, osteopenia, or osteoporosis in individuals with previous low weight and menstrual irregularity or amenorrhea	Reduced BMD, osteopenia or osteoporosis in individuals with previous low weight and menstrual irregularity or amenorrhea
Incidental	Oropharyngeal	Dental Radiography		Erosion of dental enamel

Abbreviations: BMD=bone mineral density; BUN=blood urea nitrogen; Cr=creatinine; DXA=Dual-energy X-ray absorptiometry; ECG= electrocardiogram; GFR=glomerular filtration rate; QTc=corrected QT interval

The need for additional laboratory analyses should be determined on an individual basis depending on the patient's condition or the laboratory tests' relevance to making treatment decisions. Serum magnesium and phosphorus levels are commonly measured and may need to be ordered separately from a comprehensive metabolic panel. They should be considered depending on the patient's clinical picture (e.g., risk of refeeding complications, low BMI, rapid recent weight loss, significant medical comorbidities, severe malnourishment). The risk of abnormal magnesium and phosphorus levels is not limited to low-weight individuals with eating disorders; hypomagnesemia can develop in patients with purging behavior (Raj et al. 2012) whereas hypophosphatemia can emerge in individuals with erratic eating patterns (e.g., periods of severe restriction or fasting behavior). Serum amylase levels, specifically levels of salivary amylase, may be elevated in patients who self-induce vomiting. With starvation and with renourishment, elevations in serum lipase can be seen but generally do not require intervention.

Individuals with AN have reduced bone mineral density (BMD) and increased fracture risk (Faje et al. 2014; Lucas et al. 1999; Misra et al. 2008a, 2008b; Nagata et al. 2017; Vestergaard et al. 2003). Prolonged amenorrhea is associated with reduced BMD. Thus, in patients with menstrual irregularities and primary or secondary amenorrhea, gonadotropin (e.g., follicle stimulating hormone, luteinizing hormone), estradiol, and prolactin levels, as well as a urine pregnancy test can be measured (ACOG Committee Opinion 2018). Testosterone levels also appear to influence bone density in individuals of all genders (Khosla and Monroe 2018). Some groups have recommended based on consensus that, after six months of amenorrhea, bone densitometry (DXA scan) may be warranted (Golden et al. 2014, 2015b; Gordon et al. 2017). Other clinicians obtain a DXA scan as a baseline measure even in patients with regular menses. In non-menstruating individuals with AN, there are no data to inform decisions about when to order a DXA scan. In all patients, evidence of low BMD can be useful in providing education about the health impact of AN and motivating them to gain weight.

Measurement of thyroid stimulating hormone can serve as a screening test for possible misuse of thyroid hormone (e.g., OTC thyroid supplements or levothyroxine) and can help rule out other medical conditions such as hyperthyroidism, which can lead to weight loss. On the other hand, individuals who have had significant weight loss and malnutrition can exhibit a nonthyroidal illness syndrome in which levels of total T3 are low and levels of thyroid stimulating hormone may be normal or reduced (Schorr and Miller 2017).

Other potentially useful laboratory assessments include a urine toxicology screen to assist in identifying stimulant misuse, measurement of the erythrocyte sedimentation rate to help distinguish an eating disorder from other inflammatory conditions in patients who report abdominal discomfort after eating, and serum tests to assess for nutritional status or vitamin deficiency (e.g., vitamin D, calcium, iron, thiamine).

Statement 8 – Initial Electrocardiogram

APA recommends (1C) that an electrocardiogram be done in patients with a restrictive eating disorder, patients with severe purging behavior, and patients who are taking medications that are known to prolong QTc intervals.

Implementation

The appropriateness of an electrocardiogram (ECG) depends on diagnosis, illness severity, and vital signs, and need not be obtained in every patient or in those with mild symptoms. However, an ECG should be obtained in certain circumstances, including for individuals on medications known to prolong QTc intervals and those with a restrictive eating disorder, including AN, atypical AN, and ARFID. In addition, patients often under-report purging severity and obtaining an ECG can identify concerning cardiac changes, which may point to an underlying eating disorder.

Individuals with AN are at elevated risk for a number of structural and functional cardiac abnormalities, including bradycardia, myocardial atrophy, pericardial and valvular pathology, conduction abnormalities, and sudden cardiac death (Olivares et al. 2005; Sachs et al. 2016). Less is known about cardiac effects in individuals with atypical AN and ARFID, but bradycardia does occur (Sawyer et al. 2016; Strandjord et al. 2015; Whitelaw et al. 2014, 2018) and may be associated with greater amounts of recent and total weight loss (Whitelaw et al. 2018). In individuals with BN or the binge/purge subtype of AN, self-induced vomiting and/or laxative abuse contribute to an increased risk for prolonged QTc intervals and cardiac arrhythmias due to electrolyte abnormalities (e.g., hypokalemia, metabolic alkalosis; Gibson et al. 2019; Peebles et al. 2010). The risk of QTc prolongation can be increased by concurrent use of medications known to prolong the QT interval. Drug-drug interactions that increase serum levels of these medications can further increase risk. Such medications include, but are not limited to, antidepressants, antipsychotics, anti-arrhythmics, some classes of antibiotics (e.g., macrolides, fluoroquinolones), antiviral medications (e.g., for HIV), anti-emetics (e.g., ondansetron), antihistamines (e.g., hydroxyzine, diphenhydramine), and some cancer therapeutic agents (Funk et al. 2018; Woosley et al. 2022).

Statement 9 – Treatment Plan, Including Level of Care

APA recommends (1C) that patients with an eating disorder have a documented, comprehensive, culturally appropriate, and person-centered treatment plan that incorporates medical, psychiatric, psychological, and nutritional expertise, commonly via a coordinated multidisciplinary team.

Implementation

In treating individuals with an eating disorder, a person-centered treatment plan should be developed, documented in the medical record (e.g., as part of a progress note), and updated at appropriate intervals. The aim of person-centered care, which is sometimes referred to as patient-centered care, is to provide care that is respectful of and responsive to individual preferences, needs, and values and ensures that an individual's values guide clinical decisions (Institute of Medicine Committee on Quality of Health Care in America 2001). Person-centered care is achieved through a dynamic and collaborative relationship among individuals, families, other persons of support, and treating clinicians that helps achieve the individual's realistic health and life goals and informs decision-making to the extent that the individual desires (American Geriatrics Society Expert Panel on Person-Centered Care 2016). With person-centered care, patients, families, and other persons of support are provided with information that allows them to make informed decisions (Institute of Medicine 2006). Evidence-based interventions should be adapted to meet individual needs and preferences where possible (van Dulmen et al. 2015). Self-management approaches and shared decision-making are encouraged (Institute of Medicine 2006).

with the recognition that shared-decision making may not be possible if an individual lacks awareness of their illness or the need for treatment.

A person-centered treatment plan can be recorded as part of an evaluation note or progress note and does not need to adhere to a defined development process (e.g., face-to-face multidisciplinary team meeting) or format (e.g., time-specified goals and objectives). However, it should give an overview of the identified clinical and psychosocial issues along with a specific plan for addressing factors such as food avoidance, restrictive eating, binge eating, purging, or other compensatory behaviors (if present) and related social avoidance and/or isolation. The plan will also discuss whether there is a need for further history and mental status examination; physical examination (by either the evaluating clinician or another health professional); laboratory testing; ongoing monitoring; and pharmacological, psychotherapeutic, and other nonpharmacological interventions, as indicated. In addition, the clinical evaluation will include discussion of the patient's gender and their individual strengths, vulnerabilities, personality traits, developmental stage, and motivation for treatment, each of which can inform treatment planning and help anticipate possible issues that may arise during treatment. Collateral informants such as family members, friends, or other treating health professionals may express specific concerns about the individual's eating disorder symptoms. If present, such concerns should be documented and addressed as part of the treatment plan. Treatment plans can also include elements such as collaborating with other treating clinicians, providing integrated care, educating patients about treatment options, discussing the potential impact of social media use on symptoms and eating-related behaviors, engaging family members, exploring family attitudes to eating, and addressing these attitudes, if indicated.

An understanding of the individual's cultural identity is essential to appreciating the ways in which the patient defines key concerns and values, interacts with family members, receives support from their social network, copes with stressors, and engages in help-seeking behaviors. Cultural and religious beliefs can also be relevant to the patient's dietary choices. The DSM-5 Cultural Formulation Interview (American Psychiatric Association 2013) provides a framework for eliciting such information.

Depending on the urgency of the initial clinical presentation, the availability of laboratory results, or receipt of history from collateral informants, the initial treatment plan may need to be augmented over several visits and as more details of history and treatment response are obtained. The patient's goals and their readiness to change eating patterns and behaviors will likely evolve over time. Changes to the treatment plan will also be needed if a patient has not tolerated or responded to a specific treatment or if they choose to switch treatment approaches. Symptoms of the eating disorder or of co-occurring conditions may also shift with time and can require a reassessment of the diagnosis or treatment plan.

In determining a patient's initial level of care or whether a change to a different level of care is appropriate, it is important to consider a constellation of factors including the patient's overall physical condition, behaviors, affective state, cognitions, and social circumstances (see Tables 5 and 6). Services for the treatment of eating disorders can range from intensive inpatient programs (in which general medical care is readily available) to residential and partial hospitalization programs to varying levels of

outpatient care (in which the patient receives general medical treatment, nutritional counseling, and/or individual, group, and family psychotherapy). Characteristics of such services are described in Table 7.

Table 5. Considerations in determining an appropriate level of care

- Factors that suggest significant medical instability, which may require hospitalization for acute medical stabilization, including need for monitoring, fluid management (including intravenous fluids), electrolyte replacement, or nutritional supplementation via nasogastric tube feeding (see Table 6)
- Factors that would suggest a need for inpatient psychiatric treatment (e.g., significant suicide risk, aggressive behaviors, impaired safety due to psychosis/self-harm, need for treatment over objection or involuntary treatment)
- Co-occurring conditions (e.g., diabetes, substance use disorders) that would significantly affect treatment needs and require a higher level of care
- Lack of response or deterioration in patient’s condition in individuals receiving outpatient treatment
- Extent to which the patient is able to decrease or stop eating disorder and weight control behaviors (e.g., dietary restriction, binge eating, purging, excessive exercise) without meal support or monitoring
- Level of motivation to recover, including insight, cooperation with treatment, and willingness to engage in behavior change
- Psychosocial context, including level of environmental and psychosocial stress and ability to access support systems
- Extent to which a patient’s access to a level of care is influenced by logistical factors (e.g., geographical considerations; financial or insurance considerations; access to transportation or housing; school, work, or childcare needs)

Table 6. Factors supporting medical hospitalization or hospitalization on a specialized eating disorder unit include one or more of the following:

	Adults	Adolescents (12-19 years)
Heart rate	<50 bpm	<50 bpm
Orthostatic change in heart rate	Sustained increase of >30 bpm	Sustained increase of >40 bpm
Blood pressure	<90/60 mmHg	<90/45 mmHg
Orthostatic blood pressure	>20 mmHg drop in sBP	>20 mmHg drop in sBP
Glucose	<60 mg/dl	<60 mg/dl
Potassium	Hypokalemia ¹	Hypokalemia ¹
Sodium	Hyponatremia ¹	Hyponatremia ¹
Phosphate	Hypophosphatemia ¹	Hypophosphatemia ¹
Magnesium	Hypomagnesemia ¹	Hypomagnesemia ¹
Temperature	<36 C (<96.8 F)	<36 C (<96.8 F)
BMI	<15	<75% of median BMI for age and sex

Rapidity of weight change	Greater than 10% weight loss in 6 months or greater than 20% weight loss in 1 year	Greater than 10% weight loss in 6 months or greater than 20% weight loss in 1 year
Compensatory behaviors	Occur frequently and have either caused serious physiological consequences or not responded to treatment at a lower level of care	Occur frequently and have either caused serious physiological consequences or not responded to treatment at a lower level of care
ECG	Prolonged QTc >450 or other significant ECG abnormalities	Prolonged QTc >450 or other significant ECG abnormalities
Other conditions	Acute medical complications of malnutrition (e.g., seizures, syncope, cardiac failure, pancreatitis)	Acute medical complications of malnutrition (e.g., seizures, syncope, cardiac failure, pancreatitis), arrested growth and development

¹ Reference ranges for potassium, sodium, phosphate, and magnesium and numerical thresholds for values that determine hypokalemia, hyponatremia, hypophosphatemia, and hypomagnesemia depend upon the clinical laboratory.

Abbreviations: BMI=body mass index; bpm=beats per minute; ECG=Electrocardiogram; mmHg=mm mercury; QTc=corrected QT interval; sBP=systolic blood pressure

Table 7. Characteristics of levels of care

Level of care	Specialized pediatric/medical inpatient eating disorders program	General pediatric/medical inpatient program	Specialized psychiatric inpatient eating disorders program	General psychiatric inpatient program
Unit security	Unlocked	Unlocked	Typically locked	Typically locked
Patient legal status	Voluntary or involuntary	Voluntary	Voluntary or involuntary	Voluntary or involuntary
Physician on-site 24/7	On-site 24/7	On-site 24/7	On-call or on-site 24/7	On-call or on-site 24/7
Nursing on-site 24/7	On-site 24/7	On-site 24/7	On-site 24/7	On-site 24/7
Medical monitoring	Frequent	Frequent	Frequent	Frequent
Hours of operation	24/7	24/7	24/7	24/7
Able to maintain work/school	School, in some instances	School, in some instances	School, in some instances	School, in some instances
Available interventions				
Option for IV hydration	Yes	Yes	On some units	On some units
Option for nasogastric tube feedings	Yes	Yes	On some units	On some units
Option for treatment over objection	Yes	Yes	Yes	Yes
Medical management	Yes	Yes	Consultation	Consultation
Psychiatric management	Yes	Consultation	Yes	Not eating disorder specific
Psychological management	Yes	In some instances	Yes	On some units, not eating disorder specific
Group-based therapies	Yes	No	Yes	Not eating disorder specific
Individual psychotherapies	Yes	Generally not available	Yes	Not eating disorder specific
Family psychotherapies	Yes	Generally not available	On some units	Not eating disorder specific
Meal supervision and support	All meals/day	In some instances	All meals/day	Not eating disorder specific
Milieu therapy	Yes	No	Yes	Not eating disorder specific
Nutritional management	Yes	Consultation	Yes	Consultation
Multi-disciplinary team-based management	Yes	In some instances, not eating disorder specific	Yes	Not eating disorder specific

Table 7. Characteristics of levels of care (continued)

Level of care	Residential program	Partial hospital	Intensive outpatient	Outpatient
Unit security	Unlocked	Unlocked	Unlocked	Unlocked
Patient legal status	Voluntary	Voluntary	Voluntary	Voluntary
Physician on-site 24/7	On-call 24/7	Typically not on-site full-time	Not on-site full-time	No
Nursing on-site 24/7	Typically on-site 24/7	Typically not on-site full-time	Typically not on-site	No
Medical monitoring	Limited	Limited	Limited	As indicated
Hours of operation	24/7	Variable hours per day (5-12 hours) and days per week (5-7)	3-4 hours per day, 3-7 days per week	1-2 psychotherapy sessions per week with additional visits with other clinicians as indicated
Able to maintain work/school	School, in some instances	School, in some instances	Often	Yes
Available interventions				
Option for IV hydration	No	No	No	No
Option for nasogastric tube feedings	Typically not	No	No	No
Option for treatment over objection	No	No	No	No
Medical management	Limited consultation	Limited consultation	No	Outpatient, as indicated
Psychiatric management	Yes	Yes	Variable	As indicated
Psychological management	Yes	Yes	Yes	Yes
Group-based therapies	Yes	Yes	Yes	As indicated
Individual psychotherapies	Yes	Yes	Yes	Yes
Family psychotherapies	Yes	Yes	Yes	Yes
Meal supervision and support	All meals/day	2-3 meals/day	~1 meal/day	Provided by family or care partners
Milieu therapy	Yes	Yes	Yes	No
Nutritional management	Yes	Yes	Variable	As indicated
Multi-disciplinary team-based management	Yes	Yes	Yes	As indicated

1 As an initial treatment setting, outpatient care will be appropriate for the majority of patients although
2 some individuals will need initial treatment in a higher level of care. Evidence-based outpatient
3 treatment is effective and will commonly be provided by a coordinated multidisciplinary team (Golden
4 et al. 2015b). The processes by which care coordination occur will differ with the setting and with the
5 expertise and responsibilities of multidisciplinary team members but should be discussed and agreed
6 upon in advance to assure optimal care.

7 Outpatient treatment has the advantage of allowing patients to remain with their families and continue
8 to attend school or work; however, patients and their families should understand that a higher level of
9 care may be necessary if weight control behaviors or eating disorder symptoms are worsening or if
10 progress is not seen over 6 weeks (e.g., as evidenced by an average weight gain of 0.5 to 1 lb/week in
11 individuals with AN, 50% decrease in purging behaviors for individuals with AN or BN). Thus, for
12 individuals treated in an outpatient setting, careful monitoring is essential and includes at least weekly
13 weight determinations done directly after the patient voids with shoes and outerwear removed.
14 Depending upon the patient's clinical presentation and symptoms, orthostatic pulse and orthostatic
15 blood pressure may also need to be measured on a regular basis. Additionally, in patients who purge, it
16 is important to monitor serum electrolytes with a monitoring frequency determined by prior electrolyte
17 values, purging frequency, and other aspects of the patient's clinical condition.

18 A number of factors can suggest that a higher level of care is needed, either initially or following a trial
19 of outpatient treatment. These include low weight in relation to estimated individually determined
20 target weight, rate of recent weight loss, medical complications of purging, evidence of medical
21 instability (e.g., vital sign abnormalities, severe electrolyte disturbances), approaching a weight at which
22 instability previously occurred in the patient, additional stressors that affect the patient's eating
23 disorder behaviors, the degree of the patient's difficulties in collaborating in their care, and co-occurring
24 psychiatric symptoms or diagnoses that suggest a need for a higher level of care or that merit inpatient
25 admission in their own right. Insufficient weight gain or worsening eating disorder symptoms despite
26 treatment can also suggest a need for a higher level of care. Each patient will differ in the degree to
27 which these factors may influence decisions as to the most appropriate care setting and individuals will
28 not necessarily move in a sequential fashion from one level on the care continuum to the next.
29 Furthermore, there is no algorithmic approach that can determine the optimal care setting with
30 certainty. For example, individuals may have had prior experiences in a particular treatment program or
31 level of care that will influence current decision making. In addition, consequences of nutritional
32 restriction in children and adolescents can contribute to negative effects on neuronal development,
33 impairments in concentration leading to poorer educational outcomes, loss of BMD, and arrested
34 physical growth and development (Bang et al. 2021; Hemmingsen et al. 2021; Modan-Moses et al. 2021;
35 Workman et al. 2020). A child or adolescent with a rapid loss of weight may also become medically
36 compromised more rapidly than an adult with a similar amount or rate of weight loss. As compared to
37 adults, resting vital signs also differ in children who will typically have a higher resting heart rate and
38 lower systolic blood pressure. Children and adolescents may also be more affected by stressful family
39 dynamics or school related stressors, including bullying or cyberbullying. On the other hand, older
40 patients or those with chronically low weights may be at heightened risk as compared to younger

41 individuals with shorter illness durations because of long-term malnutrition or multiple medical
42 comorbidities. Older patients may also have additional stressors (e.g., financial, occupational, social) or
43 fewer psychosocial supports as compared to children and adolescents who are residing with family.

44 For individuals who require inpatient care, the choice of a specific program should be made based on
45 the patient's psychiatric and medical status, the skills and abilities of local psychiatric and medical staff,
46 and the availability of suitable programs to care for the patient's psychiatric and other medical
47 problems. In general, however, outcomes are likely to be better when treated on inpatient units staffed
48 with experts in treating eating disorders than when treated in general medical or psychiatric inpatient
49 settings where staff lack expertise and experience with eating disorders. Furthermore, expert eating
50 disorders behavioral specialty programs can improve eating disorder symptomatology and restore
51 weight in the majority of underweight patients using a multidisciplinary approach that includes
52 supervised meals, behavioral contingency management strategies, and individual, group, and family-
53 based treatments (Attia and Walsh 2009). Patient and program characteristics may also play a role in
54 determining the pluses and minuses of program choice. For example, many programs will only accept
55 voluntary patients, which can influence treatment site access and selection. Insurance related
56 considerations are another common source of difficulty in accessing an appropriate level of care
57 (Guarda et al. 2018; Walker et al. 2020).

58 In patients of all ages, legal interventions, including involuntary hospitalization and legal guardianship,
59 may be necessary to address the safety of treatment-reluctant patients whose medical conditions are
60 life threatening. In such circumstances, involuntary treatment is ethically and clinically justified only
61 when a patient's decision-making capacity regarding appropriate treatment for their eating disorder is
62 impaired, the risk of death or serious morbidity is high, and the likelihood of benefit from involuntary
63 treatment outweighs the risk of harm. There is a limited amount of data on treatment outcomes with
64 involuntary treatment of AN; however, in general, rates of mortality with long-term follow-up do not
65 appear to differ for those who have received involuntary treatment as compared to voluntary treatment
66 (Atti et al. 2021; Ward et al. 2015). Such findings are encouraging because involuntarily treated patients
67 with AN have a higher severity of overall symptoms, a larger number of prior hospitalizations, a lower
68 BMI at the time of admission, and a higher likelihood of having comorbid conditions than patients who
69 are admitted voluntarily (Atti et al. 2021).

70 When shifts are made in the setting or location of care, continuity of care is essential. Transition
71 planning requires that the care team in the new setting or locale be identified and that specific patient
72 appointments be made. It is preferable that a specific clinician on the team be designated as the primary
73 coordinator of care to ensure continuity and attention to important aspects of treatment.

74 Weight status per se or other physiological or behavioral markers should never be used as a sole
75 criterion for transition to a less intensive setting. For example, patients who are physiologically stabilized
76 on acute medical units will still require specific inpatient treatment for eating disorders if they do not
77 meet medical, psychiatric, and behavioral criteria for less intensive levels of care and/or if no suitable,
78 less intensive levels of care are accessible because of geographic or other reasons. Individuals with
79 atypical AN may still be malnourished and be at risk for complications regardless of their current weight

80 or BMI (Whitelaw et al. 2018). Assisting patients in determining and practicing appropriate food intake
81 at a healthy weight is likely to decrease the chances of their relapsing after transitioning to a less
82 intensive setting. If transitions between settings of care occur too frequently or after only brief periods
83 of time, it can disrupt therapeutic relationships, sabotage patient progress, and lead to poorer
84 outcomes.

85 Peer-support programs can supplement but should not replace professionally provided treatment for an
86 eating disorder. Programs that provide peer support can reduce feelings of shame or stigma, decrease
87 social isolation, assist with sustaining of recovery, and help families understand eating disorders. Such
88 programs differ in their emphasis, but focus on self-acceptance, improved body image, increased
89 physical movement, and better nutrition and health. On the other hand, programs that focus on
90 abstaining from specific food groups are nutritionally problematic and can interfere with recovery. Many
91 patients and families are also accessing helpful information through web sites, newsgroups, chat rooms,
92 and social media. In some instances, however, the lack of professional supervision within these
93 resources may result in unhealthy dynamics among users or perpetration of misinformation. Thus, it is
94 recommended that clinicians inquire about a patient's or family's use of peer- or internet-based support
95 and openly discuss the information, ideas, and approaches to eating that have been gathered from
96 these sources.

97 [Anorexia Nervosa](#)

98 [Statement 10 – Medical Stabilization, Nutritional Rehabilitation, and Weight Restoration](#) 99 [for Patients With Anorexia Nervosa](#)

100 **APA recommends (1C) that patients with anorexia nervosa who require nutritional rehabilitation and**
101 **weight restoration have individualized goals set for weekly weight gain and target weight.**

102 [Implementation](#)

103 Medical stabilization, nutritional rehabilitation, weight restoration, and maintenance of weight gain are
104 critical components of treatment for AN that focus on helping the patient achieve and maintain a
105 healthy and medically-appropriate weight for their age and height. The same principles will apply to
106 individuals with other restrictive eating disorders, including ARFID and atypical AN, and may also apply
107 to individuals with other eating disorder diagnoses who require weight restoration. The goals of
108 nutritional rehabilitation for seriously underweight, malnourished, or medically unstable patients are to
109 restore medical stability (e.g., normalization of vital signs, electrolytes, and fluid balance), restore
110 weight, correct biological and psychological sequelae of malnutrition, normalize eating patterns, and
111 achieve normal perceptions of hunger and satiety.

112 Nutritional rehabilitation may be achieved in a variety of settings (e.g., outpatient, day treatment
113 program, residential, hospital) and will depend on the patient's medical and psychiatric stability. The
114 setting where a patient is engaged in weight restoration will vary according to a number of factors,
115 including age, severity of illness, available psychosocial support networks, and available treatment
116 options (see Table 7). For individuals who are markedly underweight, hospital-based programs for
117 nutritional rehabilitation should be considered. Weight restoration for adolescents and emerging adults
118 with AN will often occur as an outpatient under the supervision of their parents/caregivers (e.g., with

119 FBT). Outpatient weight restoration may also be appropriate for some adult patients, provided they are
120 able to demonstrate consistent increases in weight; however, a higher level of care may be needed if
121 weight control behaviors or eating disorder symptoms are worsening or if progress is not seen over 6
122 weeks (e.g., as evidenced by an average weight gain of 0.5 to 1 lb/week). For those in inpatient or
123 residential settings, the weight at which it is appropriate to discharge a patient may vary in relation to
124 the patient's individually determined target weight and will depend on the patient's ability to feed
125 themselves, the patient's motivation and ability to participate in treatment, and the availability and
126 adequacy of programs at a lower level of care. In general, the closer a patient is to their individually
127 determined target weight before discharge, the less risk they will have of relapsing and being
128 readmitted. Having patients maintain their weight for a period of time before they are discharged from
129 inpatient or residential treatment likely decreases the risk of relapse as well.

130 To help patients normalize eating and weight control behaviors, most specialty inpatient and residential
131 programs employ supervised meals and group therapies as well as some level of behavioral contingency
132 management as part of a structured behavioral treatment protocol. With such an approach, positive
133 reinforcements (e.g., privileges) and negative consequences (e.g., required bed rest, exercise
134 restrictions, restrictions of off-unit privileges) are built into the program; negative consequences can
135 then be reduced or terminated and positive reinforcements accelerated as target weights and other
136 goals are achieved.

137 Renourishment should be implemented in nurturing emotional contexts. Staff should convey to patients
138 their intention to take care of them and not let them die even when the illness prevents the patients
139 from taking care of themselves. If the patient experiences an element of a structured treatment
140 program as aversive, the staff should clearly communicate the rationale for programmatic protocols –
141 that the aim is to help shape and reinforce behaviors and choices aligned with health. Ongoing staff
142 training and peer support models may be useful to support staff members in providing empathic care.
143 As discussed in Statement 9, compulsory treatment is ethically and clinically justified only when a
144 patient's decision-making capacity regarding appropriate treatment for their eating disorder is impaired,
145 the risk of death or serious morbidity is high, and the likelihood of benefit from involuntary treatment
146 outweighs the risk of harm.

147 *Setting Individually Determined Target Weights*

148 Individually determined target weights should be established as part of the initial treatment plan.
149 Typically, the target weight will be discussed explicitly with the patient, but this can require considerable
150 sensitivity. On occasion it may be judicious to delay this discussion until the patient is less fearful of their
151 ultimate weight. Similarly, patients differ in the extent to which they wish to be informed of their weight
152 with some wanting to know specific values and others wanting only to know whether they have met
153 their weekly weight targets. In adolescents, target weight will be adjusted upward to correspond to
154 increases in the patient's height and it can be helpful to discuss this with them from the initiation of
155 treatment. During a period of growth, the target weight should be reassessed every 3 to 6 months.

156 One estimate of a target weight is the weight at which reproductive physiology normalizes (e.g.,
157 restoration of normal menstruation and ovulation, restoration of normal testicular function). Typically,

158 menses will resume at approximately 90% to 95% of median BMI (Dempfle et al. 2013; Faust et al. 2013;
159 Golden et al. 1997, 2008). This is typically about 5 lbs greater than the weight at which menses ceased
160 and corresponds to a threshold for body fat percentage of approximately 21% (Traboulsi et al. 2019). In
161 adults with AN, a BMI of 20 can also be used as an initial guide when determining a target weight. For
162 individuals with atypical AN, a target weight may be somewhat higher than a BMI of 20 and should be
163 individualized based upon the patient’s weight history, normalization of eating patterns, and
164 achievement of medical stability.

165 For adolescents and young adults, setting the individualized target weight should include assessment of
166 the patient’s premorbid height, weight, and BMI percentiles; menstrual history (in adolescents with
167 secondary amenorrhea); and current pubertal stage (Golden et al. 2015a). Growth curves should be
168 followed and are most useful when longitudinal data are available, given that extrapolations from cross-
169 sectional data at one point in time can be misleading. Bone age may be accurately estimated from wrist
170 x-rays and nomograms. In conjunction with bone measurements, mid-parental heights, assessments of
171 skeletal frame, and Centers for Disease Control and Prevention growth charts (available at
172 <http://www.cdc.gov/growthcharts/>) may be used to accurately estimate individually appropriate ranges
173 for “expected” weights for current age.

174 *Setting Individualized Goals for Caloric Intake and Weekly Weight Gain*

175 The period of weight restoration following medical stabilization and the resumption of regular caloric
176 intake may take several months depending upon the patient’s weight and nutritional status at
177 commencement of treatment. In working to achieve target weights, the treatment plan should also
178 establish expected rates of controlled weight gain. Clinical consensus suggests that realistic targets are,
179 2 to 4 lbs/week for patients in residential or inpatient programs, at least 1 to 3 lbs/week for patients in
180 partial hospital programs, and at least 1 to 2 lbs/week for individuals in outpatient programs. In
181 addition, for individuals treated in outpatient programs, a higher level of care may be necessary if
182 weight control behaviors or eating disorder symptoms are worsening or if progress is not seen over 6
183 weeks of treatment (e.g., as evidenced by an average weight gain of 0.5 to 1 lb/week in individuals with
184 AN; see Statement 9).

185 Historically, initial caloric prescriptions for patients beginning nutritional rehabilitation were
186 conservative (e.g., 1,000 to 1,200 kcals/day) due to concern for precipitating refeeding syndrome;
187 however, lower calorie renourishment protocols have been associated with poor weight gain (Garber et
188 al. 2012, 2013; Golden et al. 2013) and longer hospitalizations (Garber et al. 2021; Golden et al. 2013).
189 Many programs are now using higher initial caloric prescriptions (e.g., 1,500 to 2,000 kcal/day) and
190 faster rates of renourishment as the literature has not shown an association between higher caloric
191 intake during nutritional rehabilitation and the development of refeeding syndrome when patients are
192 under close medical monitoring with electrolyte correction (e.g., for hypophosphatemia) as needed
193 (Garber et al. 2016, 2021; Golden et al. 2021; Redgrave et al. 2015; Society for Adolescent Health and
194 Medicine 2014; Strandjord et al. 2015, 2016). Data from both inpatient and outpatient settings indicate
195 that early weight gain (Wade et al. 2021) and a faster rate of weight gain (Lund et al. 2009) are
196 associated with better outcomes, providing further support for a more robust approach to acute
197 nutritional rehabilitation.

198 As weight restoration proceeds, daily caloric intake should be gradually increased, with most patients
199 requiring between 3,000 and 4,000 kcal/day to achieve a regular rate of weight gain. Individuals with AN
200 experience a rise in resting energy expenditure upon resumption of increased daily caloric intake (Krahn
201 et al. 1993; Obarzanek et al. 1994; Rigaud et al. 2007b; Schebendach et al. 1997), further increasing the
202 total number of calories they require to achieve weight gain. Patients who require significantly higher
203 caloric intakes may have a truly elevated metabolic rate or they may be discarding food, vomiting,
204 exercising frequently, or engaging in significant amounts of isometric exercise or non-exercise motor
205 activity such as fidgeting. In patients who report lower caloric intake, rapid weight gain may reflect the
206 presence of hidden objects (e.g., weights) or water loading to artificially inflate weight measurements. In
207 these circumstances, weight should be measured after voiding with the patient clothed in a gown. A
208 urine specific gravity test may also be helpful in ascertaining whether weight was artificially inflated by
209 excessive water intake.

210 Registered dietitian nutritionists will typically be involved in nutritional rehabilitation and should have
211 sufficient training and experience in treating individuals with an eating disorder (Hackert et al. 2020;
212 Academy for Eating Disorders Nutrition Working Group 2021). Registered dietitian nutritionists can help
213 patients choose their own meals, provide a structured meal plan that ensures nutritional adequacy, and
214 often establish or guide plans for caloric and dietary goals, nutrient balance (including adequate fat,
215 protein, and carbohydrate), vitamin needs, food variety, and eating of regularly scheduled meals and
216 snacks (Heruc et al. 2020; International Association of Eating Disorders Professionals Foundation 2017).
217 Ongoing nutrition counseling will typically be needed as weight restoration and renourishment proceed
218 in order to implement the eating plan and make adjustments to address challenges that arise.
219 Registered dietitian nutritionists may also intervene directly with patients, serve as coaches to parents in
220 family-based therapies, and consult with other members of the treatment team.

221 Many programs utilize a meal-based approach in which patients receive a combination of regularly
222 scheduled and monitored meals and snacks. Calorie dense liquid supplements can be prescribed as
223 snacks or between meals to reach weight gain goals. It is also important to encourage patients with AN
224 to expand their food choices because patients will typically have a severely restricted range of foods
225 that are initially acceptable to them. In addition, many individuals will give rationalizations for restricted
226 eating. A careful history may be needed from the patient and from collateral sources of information to
227 identify longstanding cultural or religious practices relating to food as compared to recent restrictions in
228 food choice with the onset of an eating disorder. It can also be challenging to distinguish between a
229 preference to avoid specific foods, fear of eating specific foods, food intolerances, and true food
230 allergies.

231 Some acute medical and psychiatric programs also use supplemental nasogastric tube (NGT) feeding for
232 acute nutritional rehabilitation in patients who are unable to achieve their prescribed meal-based caloric
233 intake. The decision to use NGT feeding varies with patient age, other clinical characteristics, and
234 availability of specialized treatment programs (e.g., meal-based behavioral treatment for eating
235 disorders); it is not necessarily indicated based solely on medical instability or severity of illness (e.g.,
236 BMI in a dangerously low range). NGT feeding can lead to an increase in weight and may be employed
237 when patients do not otherwise consume a sufficient number of calories for weight gain, but it has little

238 or no impact on normalizing food intake or increasing dietary or macronutrient variety (Agostino et al.
239 2013; Garber et al. 2016; Rigaud et al. 2007a; Robb et al. 2002). Use of NGT feeding can also be
240 associated with complications such as nasal irritation, epistaxis, electrolyte disturbance, patient distress,
241 and patient-initiated NGT removal (Hindley et al. 2021). Consequently, NGT feeding should be viewed as
242 a short-term intervention with the goal of transitioning to oral intake. In addition, the potential benefits
243 of NGT feeding need to be weighed against the possibility that a patient may develop iatrogenic
244 complications of NGT feeding, become dependent on NGT feeding for nutritional support, use NGT
245 feeding as a way to avoid oral intake, or become overly focused on somatic symptoms in relation to NGT
246 feeding. When it is used, NGT feeding can be delivered continuously, overnight, or in several boluses
247 during the day depending upon the needs and preferences of the patient. In rare situations, in which
248 longer term NGT feeding is required, feeding through surgically placed gastrostomy or jejunostomy
249 tubes may be an alternative to nasogastric feeding (Neiderman et al. 2000). However, the use of such an
250 approach is not preferred. Total parenteral nutrition is not recommended and should only be considered
251 in extreme circumstances when all other options for nutritional supplementation have been attempted
252 (Garber et al. 2016). In addition, total parenteral nutrition requires intensive medical monitoring and has
253 an increased risk of serious complications (e.g., hepatic injury, sepsis, disseminated intravascular
254 coagulation; Michihata et al. 2014; Weinsier and Krumdieck 1981). Frequent reassessment of the
255 treatment plan and the patient's progress will be needed to avoid harm. In situations where involuntary
256 forced feeding is considered, careful thought should be given to clinical circumstances, family opinion,
257 and relevant legal and ethical dimensions of the patient's treatment.

258 *Physical Health Considerations During Medical Stabilization and Nutritional Rehabilitation*

259 The risk of medical sequelae from acute nutritional rehabilitation in malnourished patients with AN is
260 the most pronounced during the first week of renourishment. Weight gain results in improvement in
261 most of the physiological complications of starvation and the risk of medical sequelae declines over the
262 subsequent weeks of renourishment.

263 Refeeding syndrome is the most serious complication and can present with a range of clinical symptoms
264 including rhabdomyolysis, hemolytic anemia, seizure, cardiac arrhythmias, cardiac failure or arrest,
265 coma, and sudden death (da Silva et al. 2020; Rio et al. 2013). Hypophosphatemia which develops in the
266 setting of acute nutritional rehabilitation (i.e., refeeding hypophosphatemia) is the hallmark biochemical
267 marker of refeeding syndrome (Garber et al. 2016); however, the development of refeeding syndrome is
268 rare and can be prevented by close medical monitoring (Garber et al. 2016; Golden et al. 2015a). A
269 patient's serum levels of phosphorus, magnesium, potassium, and calcium should be determined daily
270 until stabilized. If patients are exhibiting persistent vomiting, regular monitoring of serum potassium
271 levels is recommended. Phosphorus, magnesium, and/or potassium supplementation should be given
272 when indicated and, in most circumstances, can be given orally. In addition to monitoring for electrolyte
273 abnormalities, hypoglycemia including postprandial hypoglycemia is often observed (Braude et al. 2020;
274 Guinhut et al. 2021; Kinzig et al. 2007).

275 Initial assessments should include vital signs and food and fluid intake and output, if indicated, as well as
276 monitoring for edema, rapid weight gain (associated primarily with fluid overload), and congestive heart
277 failure. Typically, edema can be managed by providing patients with education and reassurance.

278 Nevertheless, patients who misuse laxatives or diuretics are at risk of developing severe edema when
279 these are suddenly discontinued, presumably from salt and water retention caused by elevated
280 aldosterone levels associated with chronic dehydration. Caution should be taken with intravenous
281 rehydration in severely malnourished patients, especially in individuals who misuse laxatives or diuretics.
282 Any intravenous fluids should be administered at slow rates and titrated judiciously to minimize third
283 spacing and edema.

284 ECGs should be performed as indicated, depending on the patient's vital signs, the presence of
285 electrolyte abnormalities, the presence of arrhythmias or QTc prolongation on prior ECGs, and other
286 clinical factors. For children and adolescents who are severely malnourished as well as for patients with
287 recent syncope or ECG abnormalities (e.g., prolonged QTc interval, extreme bradycardia), cardiac
288 monitoring, especially at night, may be desirable until the patient's condition has stabilized.

289 GI dysmotility disorders are extremely common in individuals with eating disorders (Norris et al. 2016;
290 Schalla and Stengel 2019; West et al. 2021). These disorders are exacerbated by or can be direct
291 consequences of starvation and binge eating and purging behaviors. Dysmotility symptoms can also
292 intensify during early re-nourishment but generally improve with weight restoration. For example, with
293 re-nourishment, patients may experience abdominal pain and bloating with meals that results from the
294 delayed gastric emptying that accompanies malnutrition. These symptoms may respond to short-term
295 use of pro-motility agents, such as metoclopramide, but monitoring is needed to detect emergence of
296 drug-induced parkinsonism, acute dystonia, or tardive dyskinesia. Constipation may be ameliorated with
297 fiber laxatives, stool softeners, or other osmotic agents, such as polyethylene glycol. In severe starvation
298 or in patients with a history of laxative misuse constipation may become severe, and, rarely, progress to
299 acute bowel obstruction. Use of stimulant laxatives such as senna products or bisacodyl is not typically
300 recommended; however, if these medications are used, they should be closely monitored and reserved
301 for significant constipation that is unresponsive to stool softeners, fiber laxatives, and osmotic agents.

302 *Psychological Considerations During Nutritional Rehabilitation*

303 Ambivalence towards treatment focused on weight restoration is a hallmark of AN. As weight gain
304 proceeds, resulting changes in body shape and function may be distressing and generate doubts about
305 treatment. In addition, patients who require hospitalization usually enter care under some degree of
306 pressure from others, which can contribute to high levels of perceived coercion. Importantly, insight and
307 motivation for recovery typically improve with reversal of the starved state, normalization of eating and
308 weight control behaviors, and treatment of co-occurring conditions.

309 Weight gain also results in improvements in psychological complications of semistarvation. Although it is
310 by no means certain that patients' abnormal eating habits will improve simply as a function of weight
311 gain, there is considerable evidence to suggest that other eating disorder symptoms diminish as weight
312 is restored and maintained. For example, clinical experience indicates that with weight restoration, food
313 choices increase, food hoarding decreases, and obsessions about food decrease in frequency and
314 intensity, although they do not necessarily disappear. Attention, concentration, and other cognitive
315 effects of semistarvation also improve with re-nourishment.

316 At the same time, staff should help patients deal with their concerns about weight gain and body image
317 changes, given that these are particularly difficult adjustments for patients to make. In fact, there is
318 general agreement among clinicians that distorted attitudes about weight and body shape are the least
319 likely to improve with weight restoration and typically lag changes in weight and eating behavior. Thus,
320 it is important to warn patients about the following aspects of early recovery: as they start to recover
321 and feel their bodies getting larger, especially as they approach numbers on the scale that represent
322 phobic weights, individuals may experience a resurgence of anxious and depressive symptoms,
323 irritability, and sometimes suicidal thoughts. These mood symptoms, non-food-related obsessional
324 thoughts, and compulsive behaviors, although often not eradicated, will usually decrease over several
325 months following weight restoration if weight is maintained and restrictive eating, binge eating, or
326 purging behaviors do not recur. If mood symptoms and non-food related obsessions and compulsions
327 persist, further assessment should occur to identify co-occurring disorders and implement additional
328 treatment for any such disorders, as appropriate.

329 *Physical Activity During Nutritional Rehabilitation*

330 An individual assessment of motivations, benefits, and risks of exercise should be done for each patient
331 as part of treatment planning and re-assessed as renourishment proceeds. Treatment planning should
332 also consider whether compulsive or driven exercise was a part of the patient's eating disorder related
333 behaviors (Dittmer et al. 2018; Dobinson et al. 2019). For all patients, physical activity should be adapted
334 to the patient's food intake, energy expenditure, BMD, and cardiac function. For the severely
335 underweight patient, exercise should always be carefully supervised and monitored; it should be
336 restricted to no more than 1.5 hours/week or stopped if weight is not gained. Once a safe weight is
337 achieved, the focus of an exercise program should be on gaining physical fitness as opposed to
338 expending calories. The focus on fitness should be balanced with restoring patients' positive relationship
339 with their bodies – helping them to take back control and get pleasure from physical activities rather
340 than feeling compelled to engage in exercise. Consequently, an exercise program should be
341 developmentally appropriate and enjoyable and have endpoints that are not determined by time spent
342 expending calories or by effects on weight and body shape. Weight training to promote bone health and
343 team sports such as soccer, basketball, volleyball, or tennis are preferable to solitary activities. For
344 competitive athletes, decisions about an individual's return to full participation in sports will require
345 balancing health related factors, risks of participation in the designated sport, and other factors that
346 may influence decision-making about participation (De Souza et al. 2014; Fredericson et al. 2021;
347 Quesnel et al. 2019).

348 *Use of Medication to Support Weight Gain During Nutritional Rehabilitation*

349 There is limited evidence for benefits of medication to support weight gain during nutritional
350 rehabilitation. Furthermore, the clinical trial data that exists is almost entirely from studies of adults.
351 Consequently, the decision about whether to use psychotropic medications and, if so, which
352 medications to choose will be based on the patient's age as well as their clinical presentation. In
353 addition, many patients with AN are extremely reluctant to take medications, particularly ones that they
354 know result in weight gain. These issues must be discussed empathetically and comprehensively with
355 patients and, for children and adolescents, with their families as part of shared decision-making. The

356 limited empirical data do not show any advantages of selective serotonin reuptake inhibitors (SSRIs) in
357 terms of weight gain (Barbarich et al. 2004; Fassino et al. 2002; Halmi et al. 2005; Kaye et al. 2001;
358 Ruggiero et al. 2003; Walsh et al. 2006; Yu et al. 2011); however, these medications are commonly used
359 (Garner et al. 2016; Monge et al. 2015), are relatively well tolerated, and may be considered for those
360 with persistent depressive, anxiety, or obsessive-compulsive symptoms. If antidepressants are
361 considered for co-occurring disorders in adolescents and emerging adults, clinicians should attend to the
362 boxed warnings relating to antidepressants and discuss the potential benefits and risks of
363 antidepressant treatment with patients and families (United States Food and Drug Administration 2018).
364 Of the other antidepressants, bupropion is contraindicated for use in patients with purging behaviors
365 (e.g., laxative use, self-induced vomiting), given the increased risk of seizures observed in early clinical
366 trials in patients with BN who received high-dose immediate release bupropion (Horne et al. 1988;
367 Pesola and Avasarala 2002). Medications that prolong QTc intervals, either alone or in combination with
368 other medications, should also be used cautiously in patients with purging behaviors (Funk et al. 2018;
369 Woosley et al. 2022). Medication such as olanzapine may be useful in selected patients to assist with
370 weight gain; however, potential adverse effects (e.g., glucose dyscontrol, metabolic syndrome, akathisia,
371 extrapyramidal effects) need to be considered (Attia et al. 2019). Despite the high levels of anxiety in
372 some patients related to eating, use of a benzodiazepine as an anxiolytic agent does not appear to be
373 beneficial (Steinglass et al. 2014) and carries a risk of misuse. Electroconvulsive therapy (ECT) has
374 generally not been useful in individuals with AN except in treating severe co-occurring disorders, such as
375 major depressive disorder or catatonia, for which ECT is otherwise indicated (Andersen et al. 2017;
376 Pacilio et al. 2019; Shilton et al. 2020).

377 In terms of assisting with weight gain during nutritional rehabilitation, hormonal therapies (e.g.,
378 transdermal estradiol, human growth hormone) do not appear to confer any advantages, but studies
379 have been limited (Bloch et al. 2012; DiVasta et al. 2012; Faje et al. 2012; Golden et al. 2002; Gordon et
380 al. 2002; Klibanski et al. 1995; Misra et al. 2011). Use of hormonal therapies to improve BMD is
381 described in the Treatments to improve bone mineral density in patients with anorexia nervosa section.

382 *Treatments to Improve Bone Mineral Density in Patients With Anorexia Nervosa*

383 Individuals with AN of all genders can experience a loss of BMD, typically assessed by DXA. To reduce
384 the risk of osteopenia, osteoporosis, and bone fractures (e.g., in hips or spine), it is optimal to focus on
385 weight restoration (El Ghoch et al. 2016). Other treatments for osteopenia or osteoporosis have limited
386 evidence and possible risks that should be weighed against potential benefits to bone health in patients
387 with AN. For example, oral hormone replacement therapy has sometimes been given to improve BMD in
388 amenorrheic patients, but no good supporting evidence exists either in adults or in adolescents to
389 demonstrate its efficacy (Bloch et al. 2012; DiVasta et al. 2012, 2014a; Faje et al. 2012; Golden et al.
390 2002; Gordon et al. 2002; Hornberger et al. 2021; Klibanski et al. 1995; Misra et al. 2011; Strokosch et al.
391 2006). In addition, the American College of Obstetricians and Gynecologists recommends against the use
392 of combined oral contraceptive pills in individuals with eating disorders when the sole purpose is
393 treatment of amenorrhea (ACOG Committee Opinion 2018). Furthermore, estrogen can contribute to
394 the fusion of the epiphyses and should not be administered before growth is completed (Allen et al.
395 2021; Mosekilde et al. 2013; Shim 2015). Use of estrogen also requires intermittent administration of

396 progesterone and the occurrence of monthly bleeding may provide false reassurance about the
397 adequacy of the patient's weight, even when additional weight gain is needed. For older adolescents
398 (bone age ≥ 15 years) who are unable to gain and sustain weight gain and have a BMD Z-score < -2.0 , one
399 might consider the application of 17- β estradiol patch (100 mcg twice weekly) with cyclic oral
400 progesterone for 10 to 12 days every month (Misra et al. 2011). Bisphosphonates may be considered in
401 adults with osteoporosis, particularly when there is a history of fractures, but should be used cautiously
402 in women of childbearing age due to possible teratogenic risk. In addition, use of these medications can
403 be associated with negative effects including the infrequent occurrence of osteonecrosis of the jaw.
404 Data on use of denosumab is minimal and limited to case reports (Anand and Mehler 2019; Jamieson
405 and Pelosi 2016).

406 If dietary calcium intake is inadequate or if vitamin D levels are less than 30 ng/mL, calcium and/or
407 vitamin D supplementation should be considered although there is no evidence that such
408 supplementation normalizes BMD. In addition, with calcium, increasing ingestion via food is preferable
409 to supplementation. If supplementation is used, limiting doses of calcium to 1,200 mg daily may
410 minimize the risks of use, which include an increased possibility of renal stones or cardiovascular
411 calcification. If vitamin D levels are low (< 30 ng/mL), recommended treatment includes repletion of
412 vitamin D stores with ergocalciferol 50,000 IU once a week for 6 to 8 weeks, accompanied by a
413 maintenance dose of 1,000 to 2,000 IU vitamin D2 or D3 daily (Golden et al. 2014; Institute of Medicine
414 2011b). Weight training has also been suggested to promote bone health after weight restoration has
415 been achieved; however, information on the benefit of this approach is limited.

416 *Weight Maintenance/Stabilization*

417 There are limited data to support specific relapse prevention-focused interventions and a lack of
418 consensus within the field on how to define relapse, remission, and recovery. Nevertheless, existing
419 data suggest that patients are at the highest risk for relapse during the first year following treatment
420 and elevated risk extending into the second year (Berends et al. 2018). The duration of treatment will
421 vary with the treatment approach and individual patient needs; however, continuation of treatment
422 after patients have completed weight restoration is important to support maintenance of weight gain
423 and help prevent the return to prior patterns of eating behavior during this high-risk period. Following
424 intensive treatment and successful weight restoration, adequate caloric intake but lower dietary variety
425 and fat intake may be associated with higher relapse risk and may signal a need for additional nutritional
426 rehabilitation (Schebendach et al. 2008, 2012). The available evidence does not suggest a specific
427 benefit for use of SSRIs in addition to CBT in reducing relapse risk in patients whose weight has been
428 restored (Walsh et al. 2006) although these medications may be used to treat co-occurring disorders
429 during the weight maintenance phase of treatment.

430 *Statement 11 – Psychotherapy in Adults With Anorexia Nervosa*

431 **APA recommends (1B) that adults with anorexia nervosa be treated with an eating disorder-focused**
432 **psychotherapy, which should include normalizing eating and weight control behaviors, restoring**
433 **weight, and addressing psychological aspects of the disorder (e.g., fear of weight gain, body image**
434 **disturbance).**

435 Implementation

436 Psychotherapy is appropriate as an initial intervention in all age groups. It is also appropriate in the
437 weight restoration and relapse prevention stages of treatment. In addition to a focus on normalizing
438 eating and weight control behaviors and restoring weight, psychotherapy should include consideration
439 of other factors, such as body image normalization and eating-related cognitions.

440 During acute renourishment, it is beneficial to provide patients with AN with individual
441 psychotherapeutic management that provides empathic understanding, explanations, praise for positive
442 efforts, coaching, support, encouragement, and other positive behavioral reinforcement. Initiation of an
443 eating-disorder focused psychotherapy is also integral to the treatment of AN although the timing
444 should be individualized based on the patient's medical stability and readiness to engage in
445 psychotherapy. For example, with severely malnourished patients, attempts to conduct formal
446 psychotherapy may be ineffective. The goals of psychotherapeutic interventions include helping patients
447 with AN 1) discuss their experience of their illness; 2) cooperate with their nutritional and physical
448 rehabilitation; 3) change the behaviors and dysfunctional attitudes (e.g., cognitive distortions) related to
449 their eating disorder; 4) identify developmental, familial, and cultural antecedents of their illness; 5)
450 address comorbid psychopathology, psychological conflicts, adaptive benefits of symptoms, and family
451 or cultural factors that reinforce or maintain eating disorder behaviors; 6) improve their coping skills and
452 their interpersonal and social functioning; 7) resume age-appropriate life roles (e.g., school, work,
453 relationships); and 8) address other quality of life concerns. During weight maintenance phases of
454 treatment, psychotherapy can also help patients address residual concerns relating to body image as
455 well as body shape and weight acceptance. During this phase, psychotherapy can help patients identify
456 areas for continued progress (e.g., further normalization of eating and exercise behavior, resumption of
457 functional life roles) and learn how to avoid or minimize the risk of relapse, including specific concerns
458 about possible abuse, neglect, or developmental traumas and approaches to better cope with salient
459 developmental and other important life issues or stressors in the future. Patient's responses to the
460 therapist, including transference, can be influenced by the characteristics of the therapist (e.g., age,
461 gender, ethnicity, body size) and it is important to attend to these issues, if present. In addition,
462 clinicians need to attend to their countertransference reactions to patients with a chronic eating
463 disorder, which often include beleaguerment, demoralization, and excessive need to change the patient.
464 Consultation with other clinicians can be helpful in managing these responses.

465 In terms of specific psychotherapies, research studies often describe these interventions as distinct but
466 features of psychotherapies are often shared (see Table 8) and there is frequent overlap of the
467 psychotherapeutic interventions used in clinical practice.

Table 8. Components of psychotherapies for the treatment of anorexia nervosa

	CBT-AN	CBT-E	FPT	SSCM	MANTRA	ECHO	AFT	FBT
In-session weighing	X	X		X	X			X
Individualized case formulation	X	X	X		X		X	X
Motivational phase of treatment	X	X	X		X	X	X	
Focus on interpersonal issues/emotional expression	X	X	X	X	X	X	X	(indirectly)
Monitoring of symptoms, including eating	X	X	X	X	X	X	X	X
Examining association of symptoms/eating with cognitions	X	X						
Focus on building activities/passions to minimize overconcern with weight/body shape	X	X		If raised by patient		X		X
Use of an experimental mindset to change attitudes and behaviors	X	X			X			X
Parent-facilitated meal supervision						X		X

Abbreviations: AFT=adolescent focused individual therapy; CBT-AN=cognitive-behavioral therapy for anorexia nervosa; CBT-E=enhanced cognitive-behavioral therapy for eating disorders; ECHO=Experienced Carers Helping Others; FBT=family-based therapy/treatment; FPT=focal psychodynamic psychotherapy; MANTRA=Maudsley Model of Anorexia Nervosa Treatment for Adults; SSCM=specialist supportive clinical management

Some approaches such as FBT emphasize a time-limited model of treatment; however, for individuals with AN of long duration, psychotherapeutic treatment is frequently required for at least one year and may take many years. For patients whose illness is resistant to treatment, more extensive psychotherapeutic measures may be undertaken to engage and help motivate patients, as patients can experience substantial remission even after many years of illness (Dobrescu et al. 2020; Eddy et al. 2017; Eilsen et al. 2021).

Among the psychotherapies that have been examined, those with modest efficacy in treating AN in adults include CBT (eating focused and broadly focused), focal psychodynamic psychotherapy (FPT) interpersonal therapy (IPT), Maudsley Model of Anorexia Nervosa Treatment for Adults (MANTRA), and Specialist Supportive Clinical Management (SSCM). Experienced Carers Helping Others (ECHO) is aimed at supporting carers of patients with AN but can also contribute to improved outcomes. Psychotherapies that appear to be effective in treating adolescents and emerging adults are discussed in Statement 12.

Cognitive-Behavioral Therapy for Anorexia Nervosa

Many of the earlier clinical trials investigating CBT for AN were based on guidelines provided by Garner and colleagues (Garner et al. 1997). The essence of CBT for AN is the focus on changing weight-related behaviors and beliefs about food and weight through challenging of cognitive distortions (J.C. Carter et al. 2009; F.A. Carter et al. 2011; Dalle Grave et al. 2013a; Garner et al. 1997; McIntosh et al. 2005; Pike et al. 2003). This includes challenging rationalizations that reinforce restrictive eating, either positively (e.g., that restriction and weight loss behaviors are “healthy” or indicate control or mastery of one’s behavior) or negatively (e.g., that eating a single serving of caloric foods will lead to catastrophic weight gain or loss of control of eating). For the latter, reinforcement can include reductions in fears of weight gain but it may also include more complex meanings such as avoidance of psychosexual development and intimate interpersonal relationships, as examples. Treatment initially emphasizes building the therapeutic alliance and enhancing motivation for treatment, in part, through the establishment of this personalized formulation and the recognition by the therapist of the ways in which weight loss behaviors are reinforced. CBT includes a direct focus on eating disorder symptoms as well as an examination of core beliefs (i.e., schemas) and themes such as self-control and perfectionism. Typically, during the session, the clinician and the patient check the patient’s weight together, and the patient’s self-monitoring records and homework from the prior session are reviewed. There is an initial focus on establishing a pattern of regular eating and then increasing the size and variety of meals and snacks. Strategies to reduce purging behaviors are also addressed, if relevant. An experimental model of change is incorporated throughout treatment to test out new behaviors as a way to acquire new information to challenge beliefs around the value of weight loss. The therapeutic relationship can also serve as a model of how the individual interacts with others, which then permits dysfunctional core beliefs to be identified and cognitive distortions challenged, with the goal of decreasing social avoidance and increasing interpersonal intimacy. Psychoeducation is embedded throughout treatment with a focus on the negative consequences of starvation on physical health as well as psychosocial effects, such as increasing rigidity and social avoidance.

Enhanced Cognitive-Behavioral Therapy

Enhanced CBT (CBT-E) refers to a more formalized, manual-based version of CBT for eating disorders that is trans-diagnostic in its emphasis and designed to disrupt the cognitive behavioral processes that maintain the psychopathology of an eating disorder (Fairburn et al. 2003; Fairburn 2008). Treatment is guided by an individualized formulation of the patient's difficulties, constructed at the beginning of therapy, and then revised, as indicated. Although CBT-E was initially designed for adult outpatients with eating disorders (Fairburn et al. 2003; Fairburn 2008), it was subsequently adapted for use with adolescents (Dalle Grave et al. 2013b; Dalle Grave and Calugi 2020) and for use with patients who required a higher level of care (Dalle Grave et al. 2013a). For patients who are underweight and require weight restoration, CBT-E is delivered in about 40 sessions over 40 weeks, whereas for those who are not significantly underweight, CBT-E is usually delivered in 20 sessions over 20 weeks. Irrespective of treatment length, there is an initial emphasis on addressing the eating disorder psychopathology (i.e., focused CBT-E), with the addition of modules that address one or more "external" maintaining mechanisms (e.g., clinical perfectionism, low self-esteem, marked interpersonal difficulties) when these features are severe and are disrupting treatment progress (i.e., broad CBT-E; Cooper and Fairburn 2011).

The initial focus of treatment with CBT-E is on gaining a mutual understanding of the patient's eating disorder and engaging the patient in treatment. There is also an emphasis on personalized education that addresses regular eating and concerns about weight. The goal of CBT-E is that patients themselves decide to regain weight rather than having this decision imposed on them. The next phase of treatment addresses weight regain and the processes that maintain the patient's eating disorder. Usually, this involves addressing concerns about body shape, eating, and extreme dietary restraint, as well as enhancing the ability to deal with day-to-day events and mood changes. Every four weeks, a session is partly dedicated to reviewing the progress and obstacles, and planning for subsequent treatment. The final phase of CBT-E is dedicated to helping the patient to become accomplished at maintaining their weight.

Focal Psychodynamic Psychotherapy

FPT, as compared to CBT and related approaches, places a greater focus on interpersonal relationships and insight rather than cognitions and behavior (Friederich et al. 2019; Wild et al. 2009; Zipfel et al. 2014). At the beginning of treatment, a structured operationalized psychodynamic diagnosis is formulated that delineates the patient's experience with AN (including its physical and psychological impact), patterns of interpersonal relationships, major conflicts (e.g., intimacy, attachment, self-worth, control), and strengths as well as difficulties in ego-functioning (Cierpka et al. 2007; Schneider et al. 2008). FPT typically consists of 40 to 50 sessions, which initially occur twice weekly, then weekly for 6 months or so, tapering to less frequent sessions with the possibility of follow-up sessions after therapy ends. The first phase of treatment, which lasts 4 to 6 weeks, involves establishing a therapeutic alliance, building self-esteem, and helping patients verbalize their inner experience. This includes identification of pro-anorexia beliefs that reinforce eating behaviors and other beliefs, values and feelings related to the patient's sense of self. Before every treatment session, the patient's weight is measured by an independent person who reports the weight to the treating clinician; however, during this initial phase, the therapist avoids a premature focus on weight gain. During the second phase of treatment, there is

increased emphasis placed on weight and the associations between eating behavior and feelings, particularly with regard to interpersonal relationships. There is also a focus on underlying psychological themes and conflicts that appear connected to the patient's eating behaviors. The final phase of FPT is aimed at helping the patient transfer insights gained from the therapy experience to everyday life, to anticipate and discuss approaches for handling relapse, and to discuss feelings and relationship themes that emerge in relation to therapy termination.

Specialist Supportive Clinical Management

SSCM typically consists of 20 or more weekly sessions and helps individuals with AN to address symptoms of eating disorders within a reassuring context (McIntosh et al. 2006). As part of SSCM, elements of clinical management include education about the disorder, ongoing monitoring of symptoms including in-session weighing, and tracking of eating and related weight loss behaviors. This follows a detailed history in which the patient and therapist agree on target symptoms to monitor. Review of these target symptoms at each session is aimed at helping patients identify links between symptoms and eating behaviors. Physical health is also monitored and psychoeducation is provided about healthy eating and consequences of sustained symptoms and weight loss. Once target symptoms are discussed and addressed, the remainder of the session focuses on content chosen by the patient. As treatment progresses and symptoms improve, more of the session is focused on the patient's chosen content.

Maudsley Model of Anorexia Nervosa Treatment for Adults

The model underpinning MANTRA proposes that AN has four essential, interacting elements (Byrne et al. 2017; Schmidt et al. 2012, 2015, 2016). These include an information-processing style characterized by rigidity in thinking and an attention to detail that may miss the larger context; impairments in social and emotional functioning that interfere with the formation of friendships and development of intimacy; the occurrence of starvation that intensifies these problems and the belief that AN is a solution to these problems; and an interpersonal network that may inadvertently accommodate or enable behaviors and/or may exhibit high levels of expressed emotion. Treatment with MANTRA is based on flexible delivery of the MANTRA workbook modules and typically consists of 20 sessions. In an initial phase of treatment, the therapist employs strategies of motivational interviewing and develops an individualized case formulation in collaboration with the patient that explores the costs and perceived benefits of AN. Results from neuropsychological testing are incorporated into this formulation as a way to illustrate how an individual's style of information processing may impact functioning. This joint conceptualization is presented in the form of a letter and diagram to the patient. In the change phase, problems with social and emotional functioning are addressed, with behavioral experiments that address these impairments. For those with chronic AN, there is a module on identity development outside of AN.

Experienced Caregivers Helping Others

In ECHO, carers or psychology students with minimal prior clinical experience provide telephone coaching support to caregivers who are currently managing their child's AN on an outpatient basis (Hodsoll et al. 2017; Magill et al. 2016; Salerno et al. 2016). The support is based on a published book (Treasure et al. 2007) and uses strategies of motivational interviewing. ECHO is based on the

interpersonal maintenance model of AN. According to this model, individuals may inadvertently reinforce behaviors of AN via carer behavioral patterns such as accommodation, enabling, and expressed emotion (e.g., criticism, over-protection). Thus, helping carers develop skills that reduce such behaviors may improve the outcomes of adolescent AN. Parents perform a self-assessment where they determine if they are engaging in any behaviors that might inadvertently reinforce eating disorder behaviors. Parents then develop personalized strategies to address these behaviors. In addition, parents are taught behavior change principles and cognitive styles that are associated with eating disorders to help them better understand their child's experience.

Statement 12 – Family-Based Treatment in Adolescents and Emerging Adults With Anorexia Nervosa

APA recommends (1B) that adolescents and emerging adults with anorexia nervosa who have an involved caregiver be treated with eating disorder-focused family-based treatment, which should include caregiver education aimed at normalizing eating and weight control behaviors and restoring weight.

Implementation

Family-based therapies that include caregiver education are effective as a treatment for AN in adolescents. They are less well studied but also likely to be helpful in emerging adults, ages 18-26 years of age. Family-based interventions are not limited to family members, per se, but could involve other non-family caregivers with whom the patient resides.

FBT for AN is a manual-based approach that focuses on the effects of severe weight loss as being central to the core psychology of AN (Le Grange 1999; Lock and Le Grange 2013). The focus of FBT is to enlist parents as experts on parenting their child and have them oversee and take responsibility for nourishing the child or adolescent back to an optimal weight range. One of the central tenets of FBT is to take a non-ideological stance to disorder onset. One purpose of this emphasis is to alleviate the significant blame that parents with a child with AN have historically experienced. The therapist acts as knowledge expert and facilitator, however, it is the parents who come up with solutions on how best to nourish their child. This process is facilitated by an in-session family meal in which parents bring in a meal that they would feed their child. This in-session meal is a crucial part of therapy and allows the therapist to observe the approaches the parents use. For example, if parents' own eating behaviors are abnormal or restrictive, this can influence their approach to engaging their child in eating. Through gentle questioning, the therapist helps the parents arrive at strategies that would be most optimal for the child within their family context. For example, cultural beliefs and practices related to eating may be explored and used in developing the parents' approach to the child's eating.

At the beginning of each FBT session, the therapist weighs the patient and discusses their current concerns, emotions, and thoughts. This data is presented to the family for use in discussion about strategies at home that are working or need to be enhanced. Other elements of the treatment can include providing information about nutrition and addressing eating-related cognitions and body image normalization. As treatment progresses to Phase 2, more responsibility for independent eating is given to the adolescent and, in Phase 3, the transition to typical adolescent development is discussed. When

the patient has not gained sufficient weight after a month of treatment, a variation of FBT has been tested in which parents engage in more in-session family meals with more intense parental coaching (Lock et al. 2015b). These sessions are intended to help the parents engage in problem-solving to address barriers to implementation as well as reinvigorate the family around the severity of illness and the need for intense support and supervision. Treatment may also need to be adapted for higher levels of care (Freizinger et al. 2021; Halvorsen et al. 2018; Huryk et al. 2021; Spettigue et al. 2019).

Depending upon the developmental needs of the patient, adaptations of the treatment may be needed. For example, with emerging adults as compared to young teens, it can be helpful to have the young adult give input on the type of mealtime support they prefer and to specifically consider age-appropriate situations such as attending college, beginning work, or living apart from family (Chen et al. 2016; Dimitropoulos et al. 2018; Gorrell et al. 2019). Adaptations or augmentative approaches to FBT have been developed (Gorrell et al. 2019; Lock et al. 2015b; Richards et al. 2018), including multi-family formats (Baudinet et al. 2021; Eisler et al. 2016) and a parent-focused format in which the therapist meets primarily with the parent with patient monitoring conducted by another member of the treatment team (Le Grange et al. 2016).

For some adolescents and emerging adults, FBT may not be readily accessible due to geographic or other constraints. Small studies and significant experience during the COVID-19 pandemic suggest that FBT can be delivered using a telehealth platform to make care more readily available (Anderson et al. 2017; Hellner et al. 2021; Matheson et al. 2020). For other patients, FBT may not be feasible due to patient or family preferences or a lack of involved family members or non-family caregivers who are able and willing to engage in treatment. Other individuals may have been treated with FBT without achieving a significant response. In such circumstances, other family or individual approaches to psychotherapy may be helpful.

Adolescent focused therapy (AFT), originally referred to as ego-oriented individual therapy, is aimed at helping patients identify their emotions and learn to tolerate negative affective states (Fitzpatrick et al. 2010; Lock et al. 2010; Robin et al. 1999). In helping the patient distinguish emotional states from bodily needs, such as eating, the therapist will interpret the patient's behavior and emotions. Other themes in treatment include a focus on separation and individuation. Psychoeducation related to nutrition and effects of malnutrition is incorporated into treatment. Weight restoration occurs during the 32 to 40 sessions of AFT; however, in contrast to FBT where the parents or other care partners assume responsibility for the patient's eating, AFT encourages the patient to change their eating behaviors and gain weight. Meetings with family can occur with AFT but are used to assess parental functioning and provide updates on progress. In studies of this approach, AFT had comparable outcomes to FBT at the end of treatment but was less likely to lead to full remission of AN at follow-up assessments. In terms of other psychotherapies, systemic family therapy has been studied (Agras et al. 2014) as has CBT-E (Le Grange et al. 2020); both appear to have outcomes that are comparable to FBT.

Bulimia Nervosa

Statement 13 – Cognitive-Behavioral Therapy and Serotonin Reuptake Inhibitor Treatment for Adults With Bulimia Nervosa

APA recommends (1C) that adults with bulimia nervosa be treated with eating disorder-focused cognitive-behavioral therapy and that a serotonin reuptake inhibitor (e.g., 60 mg fluoxetine daily) also be prescribed, either initially or if there is minimal or no response to psychotherapy alone by 6 weeks of treatment.

Implementation

The aims of treatment for patients with BN are to 1) reduce and, where possible, eliminate binge eating and purging; 2) treat physical complications of BN; 3) enhance patients' motivation to cooperate in the restoration of healthy eating patterns and participate in treatment; 4) provide education regarding healthy nutrition and eating patterns; 5) encourage increased food variety and minimization of food restriction; 6) encourage healthy but not compulsive exercise patterns; 7) help patients reassess and change core dysfunctional thoughts, attitudes, motives, conflicts, and feelings related to the eating disorder; 8) address other themes that may underlie eating disorder behaviors (e.g., developmental issues, identity formation, body image concerns, self-esteem, sexual and aggressive difficulties, affect regulation, sex role expectations, family dysfunction, coping styles, problem solving); 9) treat associated psychiatric conditions, including deficits in mood and impulse regulation, self-esteem, and behavior; 10) enlist family support and provide family counseling and therapy where appropriate; and 11) prevent relapse.

Nutritional intake is important to assess for all patients with BN regardless of their body weight or BMI, as normal weight does not imply appropriate nutritional intake. Adequate nutritional intake and structured eating can prevent cravings and promote satiety. In addition, helping the patient develop a structured meal plan can aid in reducing episodes of dietary restriction and urges to binge and purge. Nutritional interventions also are valuable in increasing the variety of foods eaten. Nutrition counseling with a registered dietitian nutritionist will often be needed to implement the eating plan and make adjustments to address challenges that arise (e.g., co-occurring physical health conditions, frequent work-related schedule changes or travel; Hackert et al. 2020; Academy for Eating Disorders Nutrition Working Group 2021).

Several approaches are possible for the initial treatment of an adult with BN. Many patients show a reduction in binge eating and purging behaviors with CBT alone; however, the combination of CBT plus high-dose fluoxetine (60 mg daily) is associated with somewhat better responses than fluoxetine alone (Goldbloom et al. 1997). For this reason, initial treatment could also include a combination of CBT and an SSRI (e.g., high-dose fluoxetine). Decisions about initiating treatment with psychotherapy alone as compared to combination treatment will depend upon factors such as symptom severity, co-occurring disorders, and patient preferences. Nevertheless, the best long-term outcomes occur when the initial treatment response is relatively rapid (Mitchell et al. 1993). Thus, if there is minimal or no response to psychotherapy alone by 6 weeks of treatment, addition of an SSRI will typically be warranted.

Antidepressants or other psychopharmacologic agents may also be used to treat specific co-occurring disorders such as depressive, anxiety, obsessive-compulsive, or posttraumatic stress disorders.

Pharmacotherapy in Bulimia Nervosa

Of the SSRIs, fluoxetine is preferred as a medication choice because it has the greatest strength of research evidence showing efficacy in BN (Fluoxetine Bulimia Nervosa Collaborative Study Group 1992; Goldstein et al. 1995; Kanerva et al. 1995; Mitchell et al. 2001), independent of effects on mood (Goldstein et al. 1999). Fluoxetine has also shown benefit in a small study of individuals who had not responded to psychotherapy or had relapsed after receiving psychotherapy (Walsh et al. 2000). If symptoms do not appear to be responding to medication, it is important to assess whether the patient has taken the medication and whether medication absorption has been affected by the timing of ingestion relative to episodes of vomiting. In addition, studies show that high doses of fluoxetine (e.g., 60 mg daily) are more effective in treatment of BN than doses of 20 mg daily (Fluoxetine Bulimia Nervosa Collaborative Study Group 1992). In terms of monitoring for side effects during treatment, insomnia, nausea, and asthenia were seen in 25% to 33% of patients at the dosage of 60 mg/day and sexual side effects were common in the multicenter fluoxetine trials (Fluoxetine Bulimia Nervosa Collaborative Study Group 1992; Goldstein et al. 1995; Kanerva et al. 1995; Mitchell et al. 2001). The potential for drug-drug interactions should also be considered because fluoxetine acts as a potent inhibitor of the CYP2D6 isoenzyme and it can inhibit the CYP2C19 isoenzyme at high doses (Lexicomp 2021). For patients who have responded to fluoxetine, limited evidence supports continuing fluoxetine for relapse prevention (Romano et al. 2002), typically for a minimum of 9 months.

Other SSRI antidepressants may be used in patients who are unable to tolerate fluoxetine or who prefer a different medication; however, evidence is limited on the effects of other SSRIs or other antidepressants in BN. Nevertheless, given the need for higher doses of fluoxetine for clinical effects in BN, doses at the high end of the usual dosing range are warranted if another SSRI antidepressant is used. Caution is needed with citalopram, however, as its use has been associated with QTc prolongation at doses higher than 40 mg daily (Lexicomp 2021). In addition, clinicians should attend to the boxed warning relating to antidepressants in young adults and discuss the potential benefits and risks of antidepressant treatment with patients if such medications are to be prescribed (United States Food and Drug Administration 2018). Of the other antidepressants, bupropion is contraindicated for use in individuals with BN, given the increased risk of seizures observed in individuals with bulimia in early clinical trials of high-dose immediate release bupropion (Horne et al. 1988; Pesola and Avasarala 2002). For individuals who are receiving treatment with lithium, caution is needed to avoid toxicity due to dehydration in patients who vomit or purge using laxatives.

Psychotherapy in Bulimia Nervosa

Cognitive-Behavioral Therapy

When used for the treatment of BN, CBT is commonly delivered in an individual format, but group CBT is also effective (Agras et al. 1989; Chen et al. 2003; Davis et al. 1999; Fairburn et al. 1993; Freeman et al. 1988; Ghaderi 2006; Grenon et al. 2017; Griffiths et al. 1994, 1996; Leitenberg et al. 1988; Nevoenen and Broberg 2006; Sundgot-Borgen et al. 2002; Treasure et al. 1994). CBT for BN has typically been delivered based on the CBT-E approach of Fairburn and colleagues (Fairburn 2008). In the majority of clinical trials,

participants received 14 to 21 sessions of CBT, each lasting 40 to 60 minutes, although a few studies used a shortened course of 8 weeks of treatment and one trial included up to 60 sessions of treatment. CBT was sometimes given weekly and sometimes given at a frequency of twice weekly at the start of treatment, decreasing to weekly for the majority of treatment and tapering to once every two weeks at the end of treatment. In clinical practice, some patients may require more than 21 sessions of CBT for full treatment response, and some may require a longer period with less frequent sessions to maintain treatment gains.

CBT-E for BN consists of several phases (Fairburn 2008). In the first phase, patients are given education about BN and the effects of dieting, self-induced vomiting, or purging as forms of weight control. They are also taught to engage in self-monitoring of symptoms, asked to identify situations that trigger binge eating or purging, and encouraged to establish a regular eating pattern of at least three adequate meals each day. Behavioral approaches may also be incorporated such as eating more slowly and mindfully. The development of the therapeutic alliance is another essential ingredient of this initial treatment phase. The second phase of treatment includes a greater emphasis on problem solving, development of more constructive coping strategies, and a focus on cognitive restructuring, including identification of dysfunctional beliefs related to food, eating, weight, and body shape that perpetuate bulimic behaviors. When indicated, other dysfunctional beliefs can also be examined related to issues such as interpersonal relationships, low self-esteem, and perfectionism. After identifying these negative thoughts, patients learn to evaluate them and counter these thoughts with alternatives. Graded behavioral tasks may also be used to test these alternatives. Patients are also encouraged to expand their food variety and incorporate foods into their diet that may have previously been avoided. The final phase of treatment is aimed at maintaining progress from the earlier phases of treatment and developing skills and self-efficacy to reduce risks of relapse.

Other Psychotherapies

Evidence for psychotherapies other than CBT is more limited; however, some clinicians incorporate other psychotherapeutic approaches, such as interpersonal or psychodynamic therapies, into treatment (Agras et al. 2000; Murphy et al. 2012; Poulsen et al. 2014; Stefani et al. 2017; Thackwray et al. 1993). Although most psychotherapeutic interventions have been studied in relatively brief, time-limited trials, individuals who have not responded to an initial course of treatment may benefit from a change in the treatment approach or a longer duration of treatment. Longer treatment durations may also be needed for individuals with more severe symptoms or those with co-occurring disorders. Other therapeutic modifications can also be considered depending upon the patient's age, family situation, cognitive and psychological development, psychodynamic issues, cognitive style, comorbid psychopathology, and preferences. For example, integrative cognitive-affective therapy showed efficacy compared to CBT-E in one study and emphasizes the interplay between emotion regulation, interpersonal relationships, cognitive patterns, adaptive coping, and self-directed behaviors, including bulimic symptoms (Wonderlich et al. 2014). Dialectical behavior therapy (DBT) skills training has not been well studied in patients with BN but may be useful in individuals with other psychiatric disorders for which DBT would be indicated (Ben-Porath et al. 2020; Kröger et al. 2010; Safer et al. 2001).

Other Interventions in Bulimia Nervosa

Depending upon patient preference or availability of other treatments for BN, guided self-help (GSH) could be used as an initial treatment. With GSH, a manual-based approach is used (Fairburn 2013) with guidance provided by a health professional who does not specialize in eating disorders (e.g., mental health professional, primary care clinician) or a peer support specialist. Notably, the addition of coaching and guidance appears to be important in improving outcomes over self-help alone (Bailer et al. 2004). The use of web-based approaches has shown feasibility for delivery of GSH and telehealth approaches to CBT also are feasible and show good efficacy (Mitchell et al. 2008; Zerwas et al. 2017). If there is minimal or no response to GSH by 4 weeks of treatment, referral to a health professional with experience in treating eating disorders is indicated.

Statement 14 – Family-Based Treatment in Adolescents and Emerging Adults With Bulimia Nervosa

APA suggests (2C) that adolescents and emerging adults with bulimia nervosa who have an involved caregiver be treated with eating disorder-focused family-based treatment.

Implementation

As in the treatment of AN, FBT has evidence of benefits in the treatment of BN for adolescents or emerging adults who reside with family or other care partners who are able to participate in treatment (Le Grange et al. 2007, 2015; Schmidt et al. 2007).

FBT for BN is similar to the manual-based approach for AN (Le Grange 1999; Lock and Le Grange 2013), as described in Statement 12; however, it focuses on addressing the secrecy, shame, and dysfunctional eating patterns of BN by developing a more collaborative relationship with parents or other care partners. As a result, adolescents and emerging adults are assisted in resuming a typical developmental trajectory.

In some instances, FBT may not be feasible due to geographic or access constraints, patient or family preferences, or a lack of involved family members or non-family caregivers who are able and willing to engage in treatment. In other circumstances, a patient may have been treated with FBT without a complete response. For such individuals, CBT either adapted for adolescents or using a therapist-led GSH approach can be considered (Dalle Grave et al. 2021; Le Grange et al. 2015; Schmidt et al. 2007).

Use of fluoxetine or other SSRIs has not been well studied to treat BN in adolescents, although emerging adults have been included in some of the adult research studies. If antidepressant treatment is otherwise indicated for a co-occurring disorder, fluoxetine has been well studied in treatment of depression and anxiety disorders in this age group (Cipriani et al. 2016; Wang et al. 2017) and has the best evidence for efficacy in BN in adults (see Statement 13). If an antidepressant is considered, however, the potential benefits and risks of treatment should be discussed with patients (and parents or guardians, as appropriate) and clinicians should attend to the boxed warnings relating to antidepressants in adolescents and young adults (United States Food and Drug Administration 2018).

Binge-Eating Disorder

Statement 15 – Psychotherapy in Patients With Binge-Eating Disorder

APA recommends (1C) that patients with binge-eating disorder be treated with eating disorder-focused cognitive-behavioral therapy or interpersonal therapy, in either individual or group formats.

Implementation

Psychotherapy with CBT or interpersonal psychotherapy (IPT) shows short- and long-term benefits for BED outcomes (Hilbert et al. 2019). The aims of treatment for patients with BED are to 1) reduce and, where possible, eliminate binge eating; 2) enhance patients' motivation to participate in treatment and cooperate in the restoration of healthy eating patterns; 3) provide education regarding healthy nutrition and eating patterns; 4) encourage increased food variety and minimize food restriction, if present; 5) help patients reassess and change core dysfunctional thoughts, attitudes, motives, conflicts, and feelings related to binge eating; 6) address other themes that may underlie eating disorder behaviors (e.g., developmental issues, identity formation, body image concerns, self-esteem, sexual and aggressive difficulties, affect regulation, sex role expectations, family dysfunction, coping styles, problem solving); 7) treat associated psychiatric conditions, including deficits in mood and impulse regulation, self-esteem, and behavior; 8) enlist family support and provide family counseling and therapy where appropriate; and 9) prevent relapse.

Nutritional intake is important to assess for all patients with BED regardless of their body weight or BMI, as normal weight does not imply appropriate nutritional intake. Dietary restriction or weight suppression can be present but may not be identified without a detailed nutritional history. In addition, restrictive interventions aimed at weight loss may fuel binge eating. A history of food insecurity has also been associated with disordered eating, including binge eating (Hazzard et al. 2020). Helping the patient develop a structured meal plan with adequate nutritional intake can reduce dietary restriction, if present, and can also promote satiety, prevent craving, and reduce urges to binge eat. Nutritional interventions also are valuable in increasing the variety of foods eaten. Nutrition counseling with a registered dietitian nutritionist will often be needed to implement the eating plan and make adjustments to address challenges that arise (e.g., co-occurring physical health conditions, frequent work-related schedule changes or travel; Hackert et al. 2020; Academy for Eating Disorders Nutrition Working Group 2021).

Cognitive-Behavioral Therapy

Of psychotherapies for BED, CBT is the most widely studied (Agras and Bohon 2021). There is substantial evidence supporting its efficacy for behavioral and psychological symptoms, whether it is delivered in an individual or group format. In individual formats, studies of CBT for BED typically include 16 to 22 weekly sessions of 40 to 60 minutes, whereas in group formats 8 to 19 sessions of 60 to 150 minutes have been used. Groups vary in size from 6 to 12 members and sessions are usually weekly although session frequency may be reduced towards the end of treatment. In clinical trials, CBT has been based on one of several manuals (Fairburn 1995; Fairburn et al. 1993; Telch et al. 1990), but the general approach involves three phases of treatment. In the initial phase, there is a focus on establishing the therapeutic relationship, enhancing motivation, providing education on BED, and encouraging a pattern of eating

three balanced meals with regular snacks. Patients are also taught to monitor food intake, binge-eating episodes, and associated thoughts and feelings. In the second phase, precipitants to binge-eating episodes are identified and individuals are taught to recognize and challenge dysfunctional cognitions that trigger binge eating or that relate to eating, body weight, or body shape. Problem-solving approaches and more effective coping behaviors are developed. At this phase, some researchers also incorporate identification of negative schemas that contribute to cognitive distortions, add practice with stress management techniques, or address issues such as body image or self-esteem. The third phase focuses on maintaining improvements and strategies to prevent relapse such as proactively planning for handling of situations that present a high risk for binge eating.

Effects of web-based CBT and CBT-based GSH are modest in reducing binge eating but these modalities can be used as an initial approach, particularly if other BED treatments are not readily accessible (Agras and Bohon 2021; Carrard et al. 2011; Grilo et al. 2005b, 2013; Loeb et al. 2000; Wagner et al. 2016). However, if these approaches are not associated with improvement, referral for more specialized treatment is indicated.

Interpersonal Psychotherapy

IPT also appears to be effective in reducing binge eating (Karam et al. 2019; Wilfley et al. 1993, 2002). Studies of individual IPT used 19 sessions of 50 to 60 minutes over 24 weeks, with 3 sessions in the initial 2 weeks, weekly sessions for 12 weeks, and 4 sessions every 2 weeks. With group IPT, studies included 20 weekly sessions of 90 minutes each, 3 individual sessions (pre-treatment, mid-treatment, and post-treatment), and weekly personalized feedback in writing.

In IPT, treatment begins with a detailed evaluation of past and current symptoms and linkages to the patients' interpersonal and social context. From this assessment, which takes approximately 4 to 7 sessions, the psychotherapist develops an interpersonal case formulation, discusses and negotiates the formulation with the patient, collaboratively develops treatment goals, and provides psychoeducation about the diagnosis and treatment approaches. Treatment goals are typically aimed at addressing one of four problem areas: grief, interpersonal role disputes, role transitions, and/or interpersonal deficits. In the second phase of treatment, which consists of approximately 8 to 10 sessions, the psychotherapist focuses on ways in which binge-eating behaviors are related to current interpersonal situations. The psychotherapist uses these experiences to help the patient make changes in the targeted interpersonal problem area. The final phase of treatment focuses on termination and helps the patient plan ways to maintain gains and cope with interpersonal issues in the future.

Statement 16 – Medications in Adults With Binge-Eating Disorder

APA suggests (2C) that adults with binge-eating disorder who prefer medication or have not responded to psychotherapy alone be treated with either an antidepressant medication or lisdexamfetamine.

Implementation

Psychotherapy, either CBT or IPT, is recommended for the treatment of BED. However, some adults with BED may prefer medication to psychotherapy, whereas other individuals will not respond to

psychotherapy alone or will have moderate to severe BED, which might benefit from adjunctive pharmacotherapy. In such circumstances, two approaches to medication therapy for BED can be considered: an antidepressant medication or lisdexamfetamine.

Although CBT alone is generally associated with greater effects than antidepressant medications alone in the treatment of BED (Devlin et al. 2005, 2007; Grilo et al. 2005a, 2012b; Ricca et al. 2001), antidepressant therapy has been shown to be beneficial in reducing binge eating, independent of whether a co-occurring depressive or anxiety disorder is present (Guerdjikova et al. 2008; Hudson et al. 1998; Leombruni et al. 2008; Pearlstein et al. 2003). In addition, many individuals with BED will have a co-occurring disorder that would warrant antidepressant treatment in its own right (Devlin et al. 2005). Based on the available research evidence, there is insufficient information to recommend one antidepressant or class of antidepressants over another. Consequently, selection of an antidepressant is usually made through shared decision-making based on tolerability, side effect profile, and potential for drug-drug interactions. For this reason, tricyclic antidepressants and monoamine oxidase inhibitors are less likely to be used than other antidepressant medications. In addition, for patients who have purging behaviors or a history of purging behaviors, bupropion is contraindicated, given the increased risk of seizures observed in individuals with BN in early clinical trials of high-dose immediate release bupropion (Horne et al. 1988; Pesola and Avasarala 2002). If patients have concerns about weight gain with antidepressants, studies typically do not show changes of weight in either direction when individuals with BED receive treatment with an antidepressant.

Lisdexamfetamine has also been associated with modest short-term effects in BED (Guerdjikova et al. 2016; McElroy et al. 2015b, 2016a, 2016b, 2017). In addition, continued treatment with lisdexamfetamine was associated with less risk of relapse than when lisdexamfetamine was discontinued (Hudson et al. 2017). However, lisdexamfetamine has primarily been studied in obese patients in primary care settings and its benefits in other patients with BED are unclear. When used in individuals with BED, the initial dose is 30 mg once daily in the morning with increases in dose of 20 mg per week to the therapeutic dose of 50 to 70 mg once daily (Guerdjikova et al. 2016; McElroy et al. 2015b, 2016a, 2016b, 2017). No dose adjustments appear to be needed for individuals with hepatic dysfunction, although drug-drug interactions can occur with other medications that are metabolized through CYP2D6 hepatic enzymes (Lexicomp 2021; Takeda Pharmaceuticals 2021). For individuals with renal impairment, lower doses are indicated (i.e., 50 mg/day maximum dose for glomerular filtration rate (GFR) 15 to <30 mL/minute/1.73 m²; 30 mg/day maximum dose for GFR <15 mL/minute/1.73 m² or in end-stage renal disease requiring hemodialysis; Lexicomp 2021; Takeda Pharmaceuticals 2021). Common side effects of lisdexamfetamine include insomnia, reduced appetite, upper abdominal pain, and xerostomia; however, these effects are typically well-tolerated with comparable rates of study withdrawal with lisdexamfetamine as with placebo (Guerdjikova et al. 2016; Lexicomp 2021; McElroy et al. 2015b, 2016a; Takeda Pharmaceuticals 2021). Nevertheless, as with other stimulant medication, lisdexamfetamine treatment can be associated with modest decreases in weight and with increases in heart rate, blood pressure, anxiety, or jitteriness. Caution is needed if it is used in individuals with hypertension or cardiac disease and more frequent monitoring of vital signs may be warranted. Individuals with psychotic symptoms or bipolar disorder or who have risk factors for these conditions

may experience a worsening of symptoms with stimulant treatment. The possibility of stimulant misuse or dependence should also be considered before deciding on treatment with lisdexamfetamine as well as during treatment.

Topiramate, either alone or in combination with CBT, has also been studied in individuals with BED and obesity (Claudino et al. 2007; McElroy et al. 2003, 2007b; Nourredine et al. 2021). Although topiramate treatment was associated with reductions in binge eating, attrition in these randomized trials was high and adverse effects were more common in participants who received topiramate as compared to placebo. Cognitive dysfunction is commonly reported with topiramate, even at relatively low doses (Lexicomp 2021). Other adverse effects include increased risks of hyperchloremic metabolic acidosis, nephrolithiasis, and ocular problems (Lexicomp 2021). Dose adjustment may be needed in geriatric patients and in individuals with renal or hepatic impairment. For individuals with child-bearing potential, use of effective contraception is important; in utero exposure to topiramate has been associated with an increased risk of oral clefts and for being small for gestational age (Lexicomp 2021).

Areas for Further Research

As with any psychiatric disorder, there are multiple aspects of eating disorders that would benefit from further research (Hart and Wade 2020; Obeid et al. 2020; van Furth et al. 2016). These include research topics such as the following:

Prevention, Screening, and Assessment

- Determine whether identification of an eating disorder using routine or targeted screening is associated with benefits on patient-oriented outcomes
- Determine whether patient characteristics and symptoms can be used to identify patterns of disordered eating that would warrant early intervention in order to prevent onset of an eating disorder
- Identify risk factors for development of an eating disorder that could be used in defining subgroups of individuals who warrant prospective screening or could benefit from preventive interventions
- Identify population-based approaches to preventive interventions (e.g., address impact of social media on eating disorder development; Chung et al. 2021)
- Validate existing rating scales for screening, assessment, and session-by-session treatment change in the major types of eating disorders (e.g., AN, BN, BED, ARFID, other specified feeding and eating disorders [OSFED]) and among a broad range of ages, genders, cultures, languages, symptom patterns (e.g., focusing on eating, body shape, muscularity, driven exercise), and settings (e.g., primary care, specialty care)
- Determine whether additional screening, assessment, or longitudinal rating scales need to be developed to assure validity and reliability in the major types of eating disorders (e.g., AN, BN, BED, ARFID, OSFED) among a broad range of ages, genders, cultures, languages, symptom patterns (e.g., focusing on eating, body shape, muscularity, driven exercise), and settings (e.g., primary care, specialty care)
- Determine whether useful clinical assessment measures might be developed based on National Institute of Mental Health's Research Domain Criteria (RDoC) frameworks (Monteleone et al. 2020;

Schaefer and Steinglass 2021; Wildes and Marcus 2015) on measures such as appetitive signaling, anxiety related to social processes, reward learning, and reward prediction errors related to eating and thinness

Treatment Planning

- Determine ways to optimize short- and long-term patient outcomes, including recovery, using factors and approaches such as:
 - early identification and intervention
 - “stepped-care” approaches, which start with less intensive treatment and shift to more intensive interventions, as needed, to achieve recovery
 - telehealth (individual, group, and family)
 - remote physiological monitoring
 - large-scale data analytics and predictive algorithms
 - self-help and GSH approaches, including groups, manual-based approaches, or computer-based programs (including web-based, phone apps, chat bots, and other modalities)
 - family/caregiver interventions, including support groups and psychoeducation
 - involving certified peer support specialists as part of the multidisciplinary team
 - augmenting treatment with other psychosocial therapies (e.g., creative art therapies, cognitive remediation therapy) or complementary therapies
 - modifying treatment to improve physical health and address co-occurring health conditions, including substance-related and addictive disorders and other psychiatric disorders
 - modifying treatment to address significant symptoms such as suicidal ideas and behaviors, obsessions and compulsions, and perfectionism
 - modifying treatment to address attachment related issues or traumatic experiences, including adverse childhood experiences
 - developing new treatments to target key processes in eating disorders (e.g., satiety, hunger, energy expenditure, cognitive rigidity, self-efficacy, body dissatisfaction, self-image disturbances)
 - developing treatments to address transdiagnostic processes involved with eating disorders and also with common co-occurring conditions
- Identify clinical indicators, biomarkers, and other factors that can help in individualizing treatment selection, frequency, and duration to achieve optimal patient outcomes
- Identify clinical indicators, biomarkers, and other factors that can help in determining an optimal sequence of treatments, if an initial therapeutic modality is not associated with response or recovery
- Identify approaches to individualizing treatment selection and delivery to optimize outcomes for individuals of different ages, developmental stages, sexes, genders, races, ethnicities, and cultural groups, among other individual facets
- Identify optimal approaches to treatment of individuals with a long-standing eating disorder as compared to individuals with a more recent onset of symptoms
- Obtain additional evidence on novel or existing psychotherapies (e.g., DBT, mindfulness, acceptance and commitment therapy, mentalization based therapy) in treatment of eating disorders

- Obtain additional evidence on novel or existing pharmacotherapies in the treatment of eating disorders
- Conduct studies on the comparative effectiveness of psychotherapies and other interventions to treat eating disorders
- Identify optimal approaches to providing multidisciplinary team-based care of eating disorders
- Determine the circumstances in which “bundled” treatment programs are appropriate to use, including the elements of these programs that enhance patient outcomes
- Identify optimal dietary and nutritional interventions for each of the eating disorders, including the ways in which these interventions may need to be adjusted to specific patient needs, symptom severity, or clinical progress
- Identify clinical considerations in assessment and monitoring as well as optimal approaches to providing treatment to individuals with an eating disorder who wish to become pregnant, are pregnant, or are breastfeeding.
- Determine which factors can be used in selecting an optimal treatment setting
- Determine optimal monitoring frequencies and approaches to detect treatment-related benefits and side effects
- Identify optimal approaches to preventing relapse once remission from an eating disorder has been achieved
- Develop “step-down” approaches to care to reduce relapse and avoid discontinuities in care
- Identify the treatment elements and approaches that are viewed as most and least helpful by individuals who have recovered from an eating disorder
- Identify methods that will allow information from mobile technologies, wearable technology, and large-scale data analytics to inform assessment, treatment, and future research
- Identify approaches to redesigning workflows and models of care delivery to improve the use of best practices and reduce inequities in the care of individuals with an eating disorder
- Determine the ways in which health system factors and treatment delivery characteristics influence patient outcomes

Anorexia Nervosa

- Determine approaches to maximize patient engagement, increase motivation for change, and facilitate treatment retention for individuals with AN
- Identify optimal nutritional approaches to weight restoration including targeted meal-based interventions aimed at normalizing food choice, intake, dietary variety, and macronutrient content (e.g., percent fat intake)
- Determine whether supplemental approaches to feeding (e.g., NGT feeding) are indicated in AN, and if so, the optimal approaches and circumstances in which supplemental feeding can improve outcomes as compared to meal-based approaches
- Determine whether specific interventions (e.g., exposure with response prevention, mindfulness) can be used to address specific symptoms or concerns (e.g., anxiety about eating, body image disturbance)
- Identify predictive factors that distinguish between individuals who respond more quickly to treatment and those who have longer illness courses, with the aim of developing new treatment

approaches for individuals with severe and enduring AN

- Determine the circumstances under which specific medications (e.g., olanzapine, antidepressants) may be useful in an individual with AN
- Determine whether there is a role for exercise in the treatment of individuals with AN and, if so, the optimal type, amount, and timing of exercise recommendations
- Identify specific approaches for maintaining weight and behavioral gains and reducing relapse risk in AN, once weight restoration is achieved
- Determine ways in which treatments for AN and monitoring for medical sequelae of AN may need to be adjusted for older adults
- Determine optimal approaches for treating co-occurring disorders in an individual with AN, including whether such treatments should occur simultaneously or sequentially
- Determine optimal approaches for minimizing symptoms associated with renourishment (e.g., GI dysmotility, edema, electrolyte abnormalities, cardiac effects)
- Determine optimal approaches to prevent, identify, and treat short- and long-term medical sequelae of AN, including individual characteristics (e.g., age, gender, race, ethnicity, co-occurring conditions, family history) that can affect development of these sequelae.
- Determine the physiological and other factors that contribute to low BMD in AN, approaches to addressing BMD, and gender-associated differences in physiology and treatment of low BMD
- Determine the ways in which individuals with AN experience inequity in assessment, treatment, and outcomes due to factors such as age, gender, sexual orientation, race, ethnicity, culture, weight, body size, social determinants, and insurance status, so that these health inequities can be ameliorated

Bulimia Nervosa

- Determine whether fluoxetine or other SSRIs are effective in adolescents and emerging adults with BN
- Determine optimal approaches to treating individuals with BN who have multiple co-occurring conditions or whose diagnosis has shifted from AN-binge purge subtype to BN
- Determine the ways in which individuals with BN experience inequity in assessment, treatment, and outcomes due to factors such as age, gender, sexual orientation, race, ethnicity, culture, weight, body size, social determinants, and insurance status, so that these health inequities can be ameliorated

Binge-Eating Disorder

- Determine optimal psychotherapeutic and pharmacologic approaches to treating adolescents and emerging adults with BED
- Determine whether optimal treatment approaches for individuals with BED differ in individuals who are obese as compared to those who are not obese
- Determine whether specific treatments for obesity (e.g., diet approaches, surgical approaches) are associated with a different profile of benefits and harms when used in individuals with BED
- Determine the ways in which individuals with BED experience inequity in assessment, treatment, and outcomes due to factors such as age, gender, sexual orientation, race, ethnicity, culture, weight,

body size, social determinants, and insurance status, so that these health inequities can be ameliorated

Avoidant/Restrictive Food Intake Disorder

- Determine optimal approaches for screening, assessment, and evaluating session-by-session treatment change in individuals with ARFID among a broad range of ages, genders, cultures, languages, and symptom patterns
- Validate potential subtypes of ARFID including their patterns of signs and symptoms as well as their natural history
- Determine optimal approaches to treating individuals with ARFID, expanding on work with parent-based approaches (Shimshoni and Lebowitz 2020) and CBT (Thomas et al. 2020, 2021) as well as developing new approaches to treatment
- Identify variations in ARFID presentation across the lifespan and whether adjustments in treatment are needed for individuals in different age groups

Other Specified Feeding and Eating Disorders

- Determine optimal approaches to treating individuals with night eating syndrome
- Determine the optimal approach to setting target weights for individuals with atypical AN
- Determine ways in which treatment for atypical AN may need to differ from treatment of AN
- Determine modifications in treatment that may be needed for individuals who have had a shift in diagnosis (e.g., from the restricting subtype to the binge/purge subtype of AN, from the binge/purge subtype of AN to BN).
- Determine the ways in which individuals with other eating and feeding disorders experience inequity in assessment, treatment, and outcomes due to factors such as age, gender, sexual orientation, race, ethnicity, culture, weight, body size, social determinants, and insurance status, so that these health inequities can be ameliorated

Ethical Issues in Eating Disorder Assessment and Treatment

- Determine the optimal approaches to assess patients' capacity to accept or decline treatment in eating disorders, particularly restrictive eating disorders
- Identify circumstances under which compulsory or coercive treatment of an eating disorder may be ethically justifiable
- Determine the outcomes of compulsory or coercive treatment of an eating disorder (e.g., hospitalization, NGT feeding) as compared to declining treatment or receiving voluntary treatment
- Identify optimal approaches to providing palliative care to individuals with severe and enduring AN
- Determine optimal approaches (e.g., verbal communications, electronic information sharing via patient portals or open notes) for involving family in treatment while also protecting the privacy and confidentiality of adolescents and emerging adults
- Identify ways in which social media influences eating disorder symptoms and treatment engagement
- Determine whether specific policy recommendations, regulatory requirements, or adjustments to social media algorithms can reduce the deleterious effects of social media on individuals who

have an eating disorder

- Develop methods to assure that screening occurs in all patients undergoing a psychiatric evaluation and that diagnostic assessments are conducted in all patients reporting symptoms consistent with disordered eating, because there is no current evidence supporting ethnic or racial differences in the prevalence and presentation of eating disorders
- Identify ways in which eating disorder risks, assessment, treatment, and outcomes are affected by biases and discrimination (by society and by health care professionals) related to factors such as age, gender, sexual orientation, race, ethnicity, culture, weight, body size, and social determinants
- Identify effective approaches to reducing and eliminating health disparities due to bias and discrimination in the assessment and treatment of individuals with an eating disorder
- Determine whether specific policy recommendations, regulatory requirements, or health care service delivery interventions can reduce disparities in patient's access to care based on factors such as age, gender, sexual orientation, race, ethnicity, culture, weight, body size, and social determinants as well as insurance status and geographic location

Study Design Considerations

In addition to these specific topics that would benefit from additional research, our ability to draw clinically meaningful conclusions from research would be augmented by improvements in the design of studies. These include:

- Improve the generalizability of study populations
- Enhance study recruitment approaches and use a priori specification of analyses to obtain data on treatment effects in subgroups that have been under-represented in prior research (e.g., inpatients; older individuals; individuals with multiple psychiatric or physical health conditions; individuals with severe and/or persistent illness; diverse samples of individuals in terms of gender, sexual orientation, race, ethnicity, culture, weight, body size, and social determinants)
- Develop approaches to data collection and transparent reporting of sociodemographic factors to facilitate pooling of data from multiple studies and permit assessment of treatment effects in subgroups that have been under-represented in previous research
- Standardize collection of key data elements and outcome variables as well as information on patient characteristics that are important to risk adjustment of outcomes (e.g., BMI at admission, illness duration, age of illness onset, co-occurring conditions).
- Provide detailed information on processes used for random assignment and masking or blinding to treatment condition
- Report data separately for each diagnostic group in studies that use transdiagnostic samples
- Augment self-report observations with direct measurements of outcome, insofar as possible
- Assure that sample sizes in clinical studies are adequate to achieve statistical power
- Assure that studies report data in a consistent fashion with pre-specification of outcomes of interest
- When observations are missing, use appropriate data analytic approaches and perform sensitivity analyses, when indicated, to determine effects of missing data

- Identify instruments for measuring eating disorder symptoms that are efficient and accurate in measuring key outcomes for AN, BN, BED, and other eating disorders and foster standardized and consistent use of such instruments across studies
- Identify standardized approaches for collecting information about factors that ultimately may be useful in individualizing treatment selection (e.g., biomarkers, family history, symptom history, treatment history, and personality traits)
- Assure that studies identify the magnitude of change in scale scores that would constitute a clinically meaningful difference
- Increase collection of data on patient-centered outcomes (e.g., quality of life, social functioning, physical health, recovery)
- Develop consensus definitions of response, remission, and recovery that can be applied consistently across studies
- Assure that studies of new treatments, technologies, delivery system modifications, or clinical decision support system include specific attention to health equitability in implementation methods
- Develop mechanisms such as registries for systematic collection of information on program outcomes as a complement to collecting clinical trial data
- Improve systematic collection of information on harms, including in studies of psychotherapies
- Assure that studies assess longer-term treatment (e.g., at least 1 year) and long-term follow-up assessments (e.g., 3-5 years) to identify possible long-term harms and patterns of relapse after treatment completion

Additional Resources on Eating Disorders

Internet Resources

Academy for Eating Disorders	https://www.aedweb.org/home
Academy of Nutrition and Dietetics	https://www.eatright.org
American Academy of Child and Adolescent Psychiatry	https://www.aacap.org/
American Academy of Pediatrics	https://www.aap.org
Behavioral Health Nutrition Dietetic Practice Group of the Academy of Nutrition and Dietetics	https://www.bhndpg.org/
American Psychiatric Association	http://www.psychiatry.org/mental-health/eating-disorders
American Psychological Association	https://www.apa.org/topics/eating-disorders
Australia & New Zealand Academy for Eating Disorders	https://www.anzaed.org.au/
Centers for Disease Control and Prevention (growth charts)	http://www.cdc.gov/growthcharts/charts.htm
Families Empowered And Supporting Treatment for Eating Disorders	https://www.feast-ed.org/
Eating Disorder Registered Dietitians and Professionals	https://edrdpro.com/

International Association of Eating Disorders Professionals Foundation	http://www.iaedp.com/
National Alliance for Eating Disorders	https://www.allianceforeatingdisorders.com/
National Association of Anorexia Nervosa and Associated Disorders	https://anad.org/
National Eating Disorders Association	https://www.nationaleatingdisorders.org/
National Institute of Mental Health	http://www.nimh.nih.gov/health/publications/eating-disorders
Society for Adolescent Health and Medicine	http://www.adolescenthealth.org/Topics-in-Adolescent-Health/EatingDisorders-and-Nutrition.aspx

Books for Health Care Professionals

Agras WS, Apple RF: Overcoming Eating Disorders: A Cognitive-Behavioral Treatment for Bulimia Nervosa and Binge-Eating Disorder, 2nd Edition. New York, Oxford University Press, 2008 (therapist workbook)

Becker CB, Farrell NR, Waller G: Exposure Therapy for Eating Disorders (ABCT Clinical Practice Series) New York, Oxford University Press, 2019

Brownell KD, Walsh BT (eds): Eating Disorders and Obesity: A Comprehensive Handbook, 3rd Edition. New York, Guilford Press, 2018

Dancyger I, Fornari V (eds): Evidence Based Treatments for Eating Disorders: Children, Adolescents and Adults, 2nd Edition. New York, Nova Science Press, 2014

Lock J (ed): Pocket Guide for the Assessment and Treatment of Eating Disorders. Washington, DC, American Psychiatric Publishing, 2019

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Westmoreland P (ed): Tipping the Scales: Ethical and Legal Dilemmas in Managing Severe Eating Disorders. Washington, DC, American Psychiatric Publishing, 2021

Wonderlich SA, Peterson CB, Smith TL: Integrative Cognitive-Affective Therapy for Bulimia Nervosa: A Treatment Manual. New York, Guilford Press, 2015

Books for Patients and Families

Agras WS, Apple RF: *Overcoming Your Eating Disorder: A Cognitive-Behavioral Therapy Approach for Bulimia Nervosa and Binge-Eating Disorder, Guided Self Help Workbook: A Cognitive-Behavioral Self-Help Workbook (Treatments That Work)*. New York, Oxford University Press, 2007 (client workbook)

Andersen AE, Cohn L, Holbrook T: *Making Weight: Men's Conflicts With Food, Weight, Shape and Appearance*. Carlsbad, CA, Gürze Books, 2000

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Bays JC: *Mindful Eating: A Guide to Rediscovering a Healthy and Joyful Relationship with Food*, Revised Edition. Boulder, CO, Shambhala, 2017

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Dalle Grave R, el Khazen C: *Cognitive Behaviour Therapy for Eating Disorders in Young People: A Parents' Guide*. London, UK, Routledge, 2022

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Ganci M, Atkins L: *Unpack Your Eating Disorder: The Journey to Recovery for Adolescents in Treatment for Anorexia Nervosa and Atypical Anorexia Nervosa*. Australia, LM Publishing, 2019

Gaudiani J: *Sick Enough: A Guide to the Medical Complications of Eating Disorders*. New York, Routledge, 2019

Goodman LJ, Villapiano M: *Eating Disorders: The Journey to Recovery Workbook*. New York, Brunner-Routledge, 2018 (client workbook)

Harrison C: *Anti-Diet: Reclaim Your Time, Money, Well-Being, and Happiness Through Intuitive Eating*. New York, Little, Brown Spark, 2019

Liu A: Restoring Our Bodies, Reclaiming Our Lives: Guidance and Reflection on Recovery from Eating Disorders. Boston, MA, Trumpeter, 2011

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Schaefer J, Rutledge T: Life Without Ed: How One Woman Declared Independence from Her Eating Disorder and How You Can Too. New York, McGraw Hill, 2004

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Treasure J, Smith G, Crane A: Skills-based Caring for a Loved One with an Eating Disorder: The New Maudsley Method, 2nd Edition. London, UK, Routledge, 2017

Tribole E, Resch E, Tylka T: The Intuitive Eating Workbook: Ten Principles for Nourishing a Healthy Relationship with Food. Oakland, CA, New Harbinger Publications, 2017

Walsh BT, Attia E, Glasofer DR: Eating Disorders: What Everyone Needs to Know. New York, Oxford, 2020

Walsh BT, Glasofer DR: If Your Adolescent Has an Eating Disorder: An Essential Resource for Parents. New York, Oxford, 2020

Zucker NL: Off the C.U.F.F.: A Parent Skills Book for the Management of Disordered Eating. 2020

Guideline Development Process

This guideline was developed using a process intended to meet standards of the Institute of Medicine (2011a) (now known as the National Academy of Medicine). The process is fully described in a document available on the APA Web site at: <https://www.psychiatry.org/psychiatrists/practice/clinical-practice-guidelines/guideline-development-process>.

Management of Potential Conflicts of Interest

Members of the Guideline Writing Group (GWG) are required to disclose all potential conflicts of interest before appointment, before and during guideline development, and on publication. If any potential conflicts are found or disclosed during the guideline development process, the member must recuse himself or herself from any related discussion and voting on a related recommendation. The members of both the GWG and the Systematic Review Group (SRG) reported no conflicts of interest. The Disclosures section includes more detailed disclosure information for each GWG and SRG member involved in the guideline's development.

Guideline Writing Group Composition

The GWG was initially composed of four psychiatrists with general research and clinical expertise (R.B., J.E., M.J.T., A.S.). This non-topic-specific group was intended to provide diverse and balanced views on the guideline topic to minimize potential bias. Three psychiatrists (E.A., A.G., V.F.), one psychologist (N.Z.), one adolescent pediatrician (N.G.), one internist (M.M.), and one dietitian (L.M.) were added to provide subject matter expertise in eating disorders. Two fellows (B.U., M.R.) were involved in the guideline development process and an additional member (K.P.) provided input on quality measure considerations. The vice-chair of the GWG (L.J.F.) provided methodological expertise on such topics as appraising the strength of research evidence. The GWG was also diverse and balanced with respect to other characteristics, such as geographical location and demographic background. F.E.A.S.T and Mental Health America reviewed the draft and provided perspective from patients, families, and other care partners.

Systematic Review Methodology

This guideline is based on a systematic search of available research evidence conducted by APA staff, extraction of detailed information on included studies by Dr. Evidence (Santa Monica, CA) using the DOC Data 2.0 software platform, and network meta-analyses conducted by Heno Analytics (Vancouver, BC, Canada). The systematic search of available research evidence used MEDLINE (PubMed), Cochrane Library, and PsycINFO databases, with specific search terms and limits as described in Appendix B. Results covered the period from the start of each database to July 15, 2019 and were limited to English-language and human-only studies that were clinical trials, observational studies, systematic reviews, or meta-analyses. Case reports, comments, editorials, and letters were excluded. Updated searches were conducted using the same criteria for the period from January 1, 2019 to October 1, 2021 to assure that more recent evidence was incorporated into the guideline. Four reviewers (L.J.F., S.-H.H., J.Y., and T.C.) screened the results of the initial search, with each abstract and title screened by two reviewers according to APA's general screening criteria: RCT, systematic review or meta-analysis, or observational study with a sample of at least 50 individuals; human; study of the effects of a specific intervention or psychiatric disorder or symptoms. If discrepancies were noted among reviewers' ratings, an additional opinion was given by a third individual and consensus was achieved among the reviewers. Abstracts identified using this approach were then reviewed by one individual (S.-H. H.), with verification by a second reviewer (L. J. F.) to determine whether they met eligibility criteria as defined by the PICOT elements (see Appendix B). For the updated search, abstracts were screened in the same fashion by two reviewers (L.J.F. and S.-H.H.) with discrepancies resolved by discussion and consensus among the

reviewers. If the publication characteristics were not clear from the initial title and abstract review, full text review occurred.

Studies were included if participants were ≥ 10 years of age and diagnosed with an eating disorder (AN, BN, BED, night eating syndrome, ARFID) with diagnosis as defined by DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR, DSM-5 (Section II or Section III), or ICD-10, as applicable. Interventions of interest included psychotherapies, pharmacotherapies, and other interventions. For AN, approaches to refeeding and bone density preservation were also included. Comparator conditions included active interventions, placebo, treatment as usual, waiting list controls, or general psychiatric management. Multiple outcomes were included related to key eating disorder findings, functioning, quality of life, adverse effects, and study withdrawal rates, among others (see Appendix B). Studies were excluded if the eating disorder of interest did not account for at least 75% of the total sample. Other exclusion criteria included small sample size ($N < 20$ for RCTs, $N < 50$ for non-randomized clinical trials or observational studies), lack of a comparator group, or short treatment duration (less than 10 days for refeeding studies or less than 8 weeks for other studies). Citations to registry links, abstracts, and proceedings were not included unless also published in a peer-reviewed journal, because they did not include sufficient information to evaluate the risk of bias of the study.

For each trial identified for inclusion from the search, detailed information was extracted by Dr. Evidence (Santa Monica, CA) using the DOC Data 2.0 software platform. Dr. Evidence processes included verifications and quality checks on data extraction. In addition to specific information about each reported outcome, extracted information included citation; study design; treatment arms (including doses, sample sizes); co-intervention, if applicable; trial duration and follow-up duration, if applicable; country; setting; funding source; sample characteristics (e.g., mean age, percent nonwhite, percent female, percent with co-occurring condition); and rates of attrition, among other data elements. Summary tables (see Appendices E and H) include specific details for each study identified for inclusion from the literature search. Factors relevant to risk of bias were also identified for each RCT that contributed to a guideline statement. Risk of bias was determined using the Cochrane Risk of Bias 2.0 tool (Sterne et al. 2019) by one reviewer (J.M.) and verified by an additional reviewer (S.-H.H. or L.J.F.). Risk of bias ratings are included in summary tables (see Appendix E) with specific factors contributing to the risk of bias for each study shown in Appendix F (McGuinness and Higgins 2020). Extracted data on outcomes was used in network meta-analyses (conducted by Heno Analytics; Vancouver, BC, Canada).

Available guidelines from other organizations were also reviewed (see Appendix G) (ACOG Committee Opinion 2018; Catalan Agency for Health Technology Assessment and Research 2009; Couturier et al. 2020; Danish Health Authority 2016a, 2016b; French Haute Autorité de Santé 2010; Golden et al. 2015a; Hackert et al. 2020; Hay et al. 2014; Herpertz et al. 2019; Hilbert et al. 2017; Hornberger et al. 2021; Lock et al. 2015a; National Guideline Alliance (UK) 2020; Ozier et al. 2011; Resmark et al. 2019; The Royal Colleges of Psychiatrists 2014).

Rating the Strength of Supporting Research Evidence

Strength of supporting research evidence describes the level of confidence that findings from scientific observation and testing of an effect of an intervention reflect the true effect. Confidence is enhanced by such factors as rigorous study design and minimal potential for study bias.

Ratings were determined, in accordance with the AHRQ's Methods Guide for Effectiveness and Comparative Effectiveness Reviews (Agency for Healthcare Research and Quality 2014), by the methodologist (L.J.F.) and reviewed by members of the SRG and GWG. Available clinical trials were assessed across four primary domains: risk of bias, consistency of findings across studies, directness of the effect on a specific health outcome, and precision of the estimate of effect.

The ratings are defined as follows:

- High (denoted by the letter A)=High confidence that the evidence reflects the true effect. Further research is very unlikely to change our confidence in the estimate of effect.
- Moderate (denoted by the letter B)=Moderate confidence that the evidence reflects the true effect. Further research may change our confidence in the estimate of effect and may change the estimate.
- Low (denoted by the letter C)=Low confidence that the evidence reflects the true effect. Further research is likely to change our confidence in the estimate of effect and is likely to change the estimate.

The AHRQ has an additional category of *insufficient* for evidence that is unavailable or does not permit estimation of an effect. The APA uses the *low* rating when evidence is insufficient because there is low confidence in the conclusion and further research, if conducted, would likely change the estimated effect or confidence in the estimated effect.

Rating the Strength of Guideline Statements

Each guideline statement is separately rated to indicate strength of recommendation and strength of supporting research evidence. *Strength of recommendation* describes the level of confidence that potential benefits of an intervention outweigh potential harms. This level of confidence is informed by available evidence, which includes evidence from clinical trials as well as expert opinion and patient values and preferences. As described in the section "Rating the Strength of Supporting Research Evidence"), this rating is a consensus judgment of the authors of the guideline and is endorsed by the APA Board of Trustees.

There are two possible ratings: recommendation or suggestion. A *recommendation* (denoted by the numeral 1 after the guideline statement) indicates confidence that the benefits of the intervention clearly outweigh harms. A *suggestion* (denoted by the numeral 2 after the guideline statement) indicates greater uncertainty. Although the benefits of the statement are still viewed as outweighing the harms, the balance of benefits and harms is more difficult to judge, or either the benefits or the harms may be less clear. With a suggestion, patient values and preferences may be more variable, and this can influence the clinical decision that is ultimately made. These strengths of recommendation correspond to ratings of *strong* or *weak* (also termed *conditional*) as defined under the GRADE method for rating

recommendations in clinical practice guidelines (described in publications such as Guyatt et al. 2008 and others available on the Web site of the GRADE Working Group at <http://www.gradeworkinggroup.org/>).

When a negative statement is made, ratings of strength of recommendation should be understood as meaning the inverse of the above (e.g., *recommendation* indicates confidence that harms clearly outweigh benefits).

The GWG determined ratings of strength of recommendation by a modified Delphi method using blind, iterative voting and discussion. In order for the GWG members to be able to ask for clarifications about the evidence, the wording of statements, or the process, the vice-chair of the GWG served as a resource and did not vote on statements. The chair and other formally appointed GWG members were eligible to vote.

In weighing potential benefits and harms, GWG members considered the strength of supporting research evidence, their own clinical experiences and opinions, and patient preferences. For recommendations, at least 13 out of 14 members must have voted to recommend the intervention or assessment after 4 rounds of voting, and at most one member was allowed to vote other than “recommend” the intervention or assessment. On the basis of the discussion among the GWG members, adjustments to the wording of recommendations could be made between the voting rounds. If this level of consensus was not achieved, the GWG could have agreed to make a suggestion rather than a recommendation. No suggestion or statement could have been made if three or more members voted “no statement.” Differences of opinion within the GWG about ratings of strength of recommendation, if any, are described in the subsection of Appendix G, “Balancing of Potential Benefits and Harms in Rating the Strength of the Guideline Statement and Quality Measurement Considerations”, for each statement.

External Review

This guideline was made available for review October 5 to November 12, 2021 by stakeholders, including the APA membership, scientific and clinical experts, allied organizations, and the public. In addition, a number of patient advocacy organizations were invited for input. 108 individuals and 26 organizations submitted comments on the guideline (see the section “Individuals and Organizations That Submitted Comments” for a list of those who wished to be acknowledged in the guideline). The Chair and Co-chair of the GWG reviewed and addressed all comments received; substantive issues were reviewed by the GWG.

Funding and Approval

This guideline development project was funded and supported by the APA without any involvement of industry or external funding. The guideline was submitted to the APA Assembly and APA Board of Trustees and approved on March 21, 2022 and April 6, 2022, respectively.

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