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Medical leadership for mind, brain and body.

APA PRACTICE GUIDELINE FOR THE TREATMENT OF PATIENTS WITH EATING DISORDERS

These training slides are funded by the Gordon and Betty Moore Foundation through a grant program administered by the Council of Medical Specialty Societies.

PRACTICE GUIDELINE DEVELOPMENT

- Systematic Review
- Expert Survey

- Writing Group Develops Draft
- Review and Revisions

- APA Assembly and Board of Trustees Approval

EATING DISORDERS: SCREENING

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

Rationale: Risk to health if present; estimated prevalence:

	12-month prevalence	Lifetime prevalence
Anorexia nervosa	0.5% ♀ 0.1% ♂	1.4% ♀ 0.2% ♂
Bulimia nervosa	0.7% ♀ 0.4% ♂	1.9% ♀ 0.6% ♂
Binge-eating disorder	1.4% ♀ 0.6% ♂	2.8% ♀ 1.0% ♂

- Prevalence rates have a wide range of estimates based on the study design and country. Rates for eating disorders that do not meet full diagnostic criteria are even higher.

EATING DISORDERS: SCREENING QUESTIONNAIRE

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Basic questions to integrate into the interview

- ❑ "Have you or others worried about your weight or shape or about what or how you eat?"
- ❑ "Has your weight or shape ever affected how you feel about yourself?"

SCOFF Questionnaire

- ❑ Do you make yourself **S**ick because you feel uncomfortably full?
- ❑ Do you worry you have lost **C**ontrol over how much you eat?
- ❑ Have you recently lost > 14 lbs (**O**ne stone) in a 3-month period?
- ❑ Do you believe yourself to be **F**at when others say you are too thin?
- ❑ Would you say that **F**ood dominates your life?

- ❑ To assess for binge-eating disorder, add: 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)?

EATING DISORDERS: INITIAL EVALUATION OF EATING HISTORY

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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;**

EATING DISORDERS: INITIAL EVALUATION OF EATING HISTORY, CONT.

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Statement 2 (continued)

- **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).**

EATING DISORDERS: ASSESSMENT RECOMMENDATIONS FROM EXPERT SURVEY

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Rationale for assessment related recommendations comes from consensus, including expert opinion survey (1 = not appropriate, 5 = highly appropriate to assess).

	N	Min	Max	Median	Mean	SD
Patterns of restrictive eating	187	3	5	5	5	1.3
Patterns of self-induced vomiting	188	2	5	5	5	1.8
History of changes in weight (and height for adolescents)	187	3	5	5	4.9	1.3
Patterns of binge eating	188	2	5	5	4.9	1.8
Patterns of laxative use	187	2	5	5	4.9	1.8
Patterns of other compensatory or purging behaviors	186	3	5	5	4.9	1.2
Core attitudes related to weight, shape, and eating	186	2	5	5	4.9	1.8
Past treatment for eating disorder and treatment response	186	2	5	5	4.9	1.7
Current suicidal ideas, plans, or intentions	186	1	5	5	4.9	2.3
Patterns of exercise	188	2	5	5	4.8	1.7

EATING DISORDERS: ASSESSMENT RECOMMENDATIONS FROM EXPERT SURVEY, PART 2

Current or past psychiatric diagnoses (including mood disorder, anxiety disorder, obsessive compulsive disorder, post-traumatic stress disorder, ADHD, and alcohol or other substance use disorder)	183	2	5	5	4.8	1.7
Current psychiatric symptoms (including anxiety and mood symptoms)	186	1	5	5	4.8	2.3
Current height and weight, with calculation of BMI	184	1	5	5	4.8	2.3
History of suicidal behaviors or non-suicidal self-injury	186	1	5	5	4.7	2.2
Current vital signs, including orthostatic blood pressure and temperature	186	2	5	5	4.7	1.6
Laboratory testing for electrolyte abnormality (e.g., basic metabolic panel)	186	2	5	5	4.7	1.7
Psychosocial stressors including family/relationship stressors	186	2	5	5	4.6	1.6
History of abuse or neglect (including physical, emotional, or sexual)	184	1	5	5	4.6	2.1
Menstrual history, including changes in menses	188	1	5	5	4.5	2.1
Past psychopharmacologic treatment and response	187	2	5	5	4.5	1.5
Family history of eating disorders including obesity	186	1	5	5	4.5	2.1

EATING DISORDERS: ASSESSMENT RECOMMENDATIONS FROM EXPERT SURVEY, PART 3

Laboratory testing for anemia or other hematologic abnormality (e.g., complete blood N)	184	2	5	5	4.5	1.5
Family attitudes and interactions related to eating	185	2	5	5	4.4	1.4
Family history of psychiatric illness	187	1	5	5	4.4	2
Evidence of self-injury	185	1	5	5	4.4	2
Current cardiovascular function, including peripheral vascular function	185	1	5	5	4.2	1.9
Laboratory testing for thyroid abnormality (e.g., thyroid stimulating hormone)	184	2	5	5	4.2	1.3
Bone density testing if amenorrheic for at least 6 months	185	1	5	5	4.2	1.9
Electrocardiogram	184	1	5	5	4.2	1.8
Current evidence of dermatological manifestations of eating disorders	183	1	5	4	3.7	1.6
Dental examination in individuals with a history of purging	185	1	5	4	3.7	1.6
Bone density testing regardless of menstrual status	182	1	5	3	3.1	1.4

EATING DISORDERS: INITIAL EVALUATION

When conducting an assessment for an eating disorder, consider the full range of possible disorders including atypical eating disorders and avoidant/restrictive food intake disorder (ARFID).

ARFID Diagnostic Criteria (F50.82)

- An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) associated with one (or more) of the following:
  - 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.
  - Marked interference with psychosocial functioning.
- The disturbance is not better explained by lack of available food or by an associated culturally sanctioned practice.
- The eating disturbance does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way in which one's body weight or shape is experienced.
- The eating disturbance is not attributable to a concurrent medical condition or not better explained by another mental disorder. When the eating disturbance occurs in the context of another condition or disorder, the severity of the eating disturbance exceeds that routinely associated with the condition or disorder and warrants additional clinical attention.

EATING DISORDERS: QUANTITATIVE MEASURES

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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).

Rationale:

- Establishes level of severity, in part aligning with DSM criteria.
- Permits tracking of relative changes in symptoms over time with greater reliability than retrospective recall.
- Consistent with suggestion in psychiatric evaluation guidelines and other guidelines to use quantitative measures.

EATING DISORDERS: EXAMPLES OF PATIENT AND CLINICIAN RATED SCALES

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- SCOFF Questionnaire
- Eating Disorder Assessment for DSM-5 (EDA-5)
- Eating Disorders Examination (EDE)
- Eating Disorders Examination Questionnaire (EDE-Q)
- Eating Disorders 15 (ED-15)
- Clinical Impairment Assessment (CIA)
- Kids' Eating Disorders Survey
- Eating Disorders in Youth Questionnaire
- Nine Item Avoidant/Restrictive Food Intake Disorder Screen
- Pica, ARFID, and Rumination Disorder Interview (PARDI)

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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.

Rationale:

- Physical health conditions can confound diagnosis, be associated with higher rates of eating disorders, and contribute to complications of eating disorders.
- Rates of psychiatric comorbidity are high (e.g., depression, anxiety, trauma-related disorders, ADHD, misuse of substances such as stimulants).

EATING DISORDERS: IDENTIFICATION OF CO-OCCURRING CONDITIONS, PART 2

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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).
- complications of eating disorders (e.g., diabetes, inflammatory bowel disease, celiac disease).

When another psychiatric condition is present,

- determine whether psychiatric symptoms (depression, anxiety, obsessionality) reflect an independent co-occurring disorder or have developed as a result of the eating disorder.

ARFID is commonly comorbid with…

- GI disease (e.g., achalasia, eosinophilic esophagitis, celiac disease, inflammatory bowel disease), autism spectrum disorder, ADHD, anxiety symptoms and diagnoses, and depressive symptoms.

EATING DISORDERS: IDENTIFICATION OF CO-OCCURRING CONDITIONS, PART 3

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Substance use history such as…

- the use of caffeine, tobacco, alcohol, cannabinoids, and other substances
- cigarette smoking (including electronic cigarettes or vaping) to suppress appetite
- the 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)

Trauma history such as…

- physical, emotional, or sexual abuse; bullying (including cyberbullying); neglect (including food insecurity); symptoms related to PTSD

Suicide risk assessment such as…

- suicide risk, including current suicidal ideas, plans, or intentions, prior suicidal plans or attempts, and the presence of non-suicidal self-injury

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

Rationale:

- Somatic symptoms are common in individuals with eating disorders.
- Physical health complications of eating disorders often warrant additional intervention or monitoring.

EATING DISORDERS: SIGNS AND SYMPTOMS

Organ System	Symptom/*Sign* Related to nutritional restriction	Symptom/*Sign* Related to purging
Whole body	*Low body weight, cachexia*	
Whole body	Fatigue	
Whole body	*Weakness*	*Weakness*
Whole body	*Dehydration*	
Whole body	Cold intolerance, *low body temperature*	
Whole body	Hot flashes, sweating	
Central nervous system	Anxiety, depression, or irritability	Anxiety, depression, or irritability
Central nervous system	Apathy	Apathy
Central nervous system	Poor concentration	Poor concentration
Central nervous system	Headache	Headache
Central nervous system	*Seizures* (in severe cases)	*Seizures* (in severe cases)
Central nervous system		Paresthesia (due to electrolyte abnormalities)
Central nervous system	*Peripheral polyneuropathy* (in severe cases)	

EATING DISORDERS: SIGNS AND SYMPTOMS, PART 2

Organ System	Symptom/*Sign* Related to nutritional restriction	Symptom/*Sign* Related to purging
Oropharyngeal	Dysphagia	
Oropharyngeal		*Dental enamel erosion and decay*
Oropharyngeal		*Enlarged salivary glands*
Oropharyngeal		Pharyngeal pain
Oropharyngeal		*Palatal scratches, erythema, or petechiae*
Gastrointestinal	Abdominal discomfort	Abdominal discomfort
Gastrointestinal	Constipation	Constipation
Gastrointestinal		Diarrhea (due to laxative use)
Gastrointestinal	Nausea	
Gastrointestinal	Early satiety	
Gastrointestinal	*Abdominal distention*, bloating	*Abdominal distention*, bloating
Gastrointestinal		Heartburn, *gastroesophageal erosions or inflammation*
Gastrointestinal		*Vomiting, possibly blood-streaked*
Gastrointestinal		*Rectal prolapse*

EATING DISORDERS: SIGNS AND SYMPTOMS, PART 3

Organ System	Symptom/*Sign* Related to nutritional restriction	Symptom/*Sign* Related to purging
Cardiovascular	Dizziness, faintness, *orthostatic hypotension*	Dizziness, faintness, *orthostatic hypotension*
Cardiovascular	Palpitations, *arrhythmias*	Palpitations, *arrhythmias*
Cardiovascular	*Bradycardia*	
Cardiovascular	*Weak irregular pulse*	
Cardiovascular	*Cold extremities, acrocyanosis*	
Cardiovascular	Chest pain	
Cardiovascular	*Dyspnea*	
Reproductive	*Slowing of growth (in children or adolescents)*	*Slowing of growth (in children or adolescents)*
Reproductive	*Arrested development of secondary sex characteristics*	*Arrested development of secondary sex characteristics*
Reproductive	Low libido	Low libido
Reproductive	*Fertility problems*	
Reproductive	*Oligomenorrhea*	*Oligomenorrhea*
Reproductive	*Primary or secondary amenorrhea*	

EATING DISORDERS: SIGNS AND SYMPTOMS, PART 4

Organ System	Symptom/*Sign* Related to nutritional restriction	Symptom/*Sign* Related to purging
Muscular	*Proximal muscle weakness, wasting, or atrophy*	
Muscular		Muscle cramping
Skeletal	Bone pain	Bone pain
Skeletal	*Stress fractures*	*Stress fractures*
Skeletal	*Slowed growth (relative to expected)*	*Slowed growth (relative to expected)*
Dermatological	*Dry, yellow skin*	
Dermatological	*Change in hair including hair loss and dry and brittle hair*	
Dermatological	*Lanugo*	
Dermatological		*Scarring on dorsum of hand (Russell's sign)*
Dermatological	*Poor skin turgor*	*Poor skin turgor*
Dermatological	*Pitting edema (with refeeding)*	*Pitting edema*

EATING DISORDERS: INITIAL PHYSICAL EXAMINATION

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.

Rationale:

- Experts suggest that physical examination assessment improves diagnostic accuracy, appropriateness of treatment selection, and treatment safety.

EATING DISORDERS: PHYSICAL EXAMINATION AND OTHER SIGNS

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Abnormal vital signs

- Possible indication of medical instability that warrants a higher-level care, e.g., heart rate < 50 bpm, systolic blood pressure < 90 mmHg, or temperature < 36 °C (96.8 °F)

Height, weight, and BMI

- Evaluate initially and, ideally, obtain weight at all visits. (www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html)

- Note that normal results may not exclude the presence of an eating disorder.

EATING DISORDERS: PHYSICAL EXAMINATION AND OTHER SIGNS (CONTINUED)

If purging behavior is present…

- Refer for a dental evaluation.
- Instruct patients not to brush teeth after vomiting.
- Oral rinsing with water after vomiting and avoiding ingestion of carbonated beverages or citrus fruits may help to reduce effects on dentition.

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.

Rationale:

- Experts suggest that laboratory assessment improves diagnostic accuracy, appropriateness of treatment selection, and treatment safety.
- Laboratory assessment can be helpful in detecting abnormalities that may require intervention, including a higher level of care, though, normal laboratory values should not rule out a potential eating disorder.

EATING DISORDERS: LABORATORY ABNORMALITIES

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Test	Related to nutritional restriction	Related to purging
Serum electrolytes	Hypokalemia, hyponatremia, hypomagnesemia, hypophosphatemia (especially on refeeding)	Hypokalemia, hyponatremia, hypochloremia, hypomagnesemia, hypophosphatemia, metabolic acidosis
Lipid panel	Hypercholesterolemia	
Serum glucose	Low blood sugar	
Liver function	Elevated liver function tests	
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)

EATING DISORDERS: LABORATORY ABNORMALITIES (CONTINUED)

Test	Related to nutritional restriction	Related to purging
Urinalysis	Urinary specific gravity abnormalities	Urinary specific gravity abnormalities, high pH
Serum gonadotropins and sex hormones	Decreased serum estrogen or serum testosterone; prepubertal patterns of LH, FSH	May be hypoestrogenemic, if menstrual irregularities are present
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
Dental radiography		Erosion of dental enamel

EATING DISORDERS: EXAMPLES OF POTENTIAL LABORATORY ABNORMALITIES

- Anemia, leukopenia, or thrombocytopenia, particularly at low weight
- Hemoconcentration from dehydration in individuals who purge or restrict fluids (may initially mask anemia)
- Hypoglycemia in the setting of reduced glycogen stores and impaired gluconeogenesis in individuals with AN
- Postprandial hypoglycemia in individuals with a low BMI
- Hypokalemia and hypochloremic metabolic alkalosis in individuals who vomit regularly; hyperchloremic metabolic acidosis in individuals who misuse laxatives
- Hyponatremia in patients with eating disorders who drink excessive amounts of water, which poses a risk for seizures; increased risk with concurrent use of medications that can cause hyponatremia (e.g., SSRIs)

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.

Rationale:

- Conducting an electrocardiogram (ECG) under specified circumstances as part of the initial evaluation may improve diagnostic accuracy, appropriateness of treatment selection, and treatment safety.

EATING DISORDERS: ECG FOR CARDIAC ABNORMALITIES

Test	Related to nutritional restriction	Related to purging
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

EATING DISORDERS: TREATMENT PLAN, INCLUDING LEVEL OF CARE

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.

Rationale:

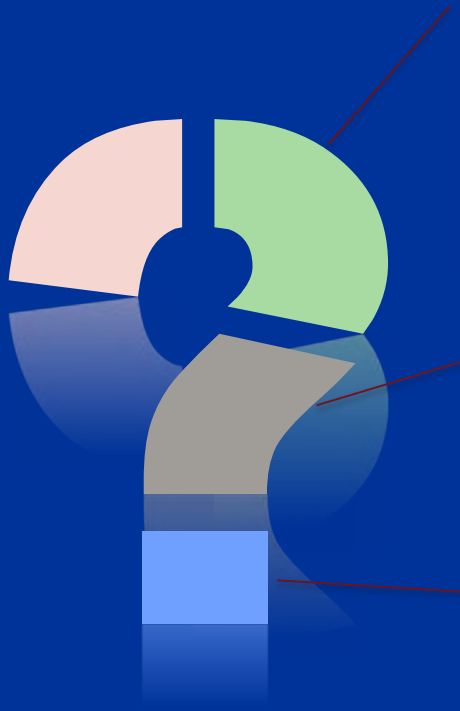
- Having a comprehensive treatment plan assures consideration of nonpharmacological and pharmacological treatment options and assists in forming a therapeutic relationship, eliciting patient preferences, permitting education about possible treatments, setting expectations for treatment, and establishing a framework for shared decision-making.

EATING DISORDERS: DETERMINING AN APPROPRIATE SETTING OF CARE

Does the patient have any factors that suggest significant medical instability that would require pediatric or medical admission for monitoring, fluid management (including intravenous fluids), or nutritional supplementation via nasogastric tube feeding?

E.g., HR < 50 bpm, BP < 90/45, significant orthostatic vital sign changes, hypokalemia, hyponatremia, hypomagnesemia, hypophosphatemia, low body temperature (< 96 °F), low BMI (< 15 for adults, < 75% median BMI for adolescents), prolonged QTc (> 450 msec), significant ECG abnormalities, acute complications of malnutrition (e.g., seizures, syncope, cardiac failure, pancreatitis, poorly controlled diabetes, arrested growth and development in adolescents)

EATING DISORDERS: DETERMINING AN APPROPRIATE SETTING OF CARE, PART 2



Does the patient have co-occurring conditions (e.g., diabetes, substance use disorders, personality disorders) that would significantly affect treatment needs and require a higher level of care?

Has the patient had a trial of outpatient treatment that was unsuccessful?

To what extent is the patient able to control eating disorder and weight control behaviors (e.g., restrictive eating, binge eating, purging)?

EATING DISORDERS: DETERMINING AN APPROPRIATE SETTING OF CARE, PART 3

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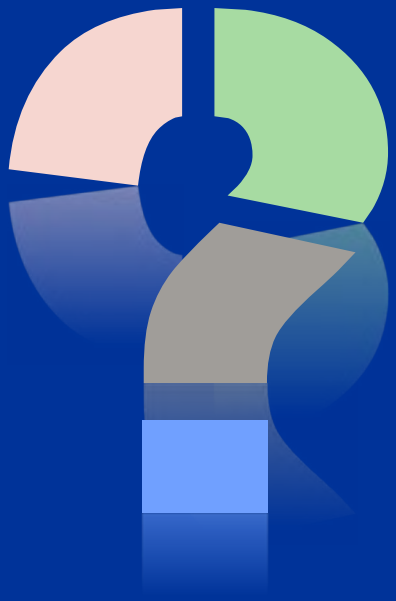
Additional Considerations:



What is the patient's level of motivation to recover, including insight and cooperation with treatment?

What is the patient's psychosocial context, including level of environmental and psychosocial stress and ability to access support systems?

To what extent would the patient's access to a level of care be influenced by logistical factors (e.g., geographical considerations; financial or insurance considerations; access to transportation or housing; school, work, or childcare needs)?

EATING DISORDERS: CHARACTERISTICS OF LEVELS OF CARE

Levels of Care

- Specialized pediatric or medical inpatient
- General pediatric or medical inpatient
- Specialized psychiatric inpatient
- General psychiatric
- Residential programs
- Partial hospital
- Intensive outpatient
- Outpatient

Variation in Availability of Features

Setting Characteristics

- Unit security
- Patient legal status
- Physician on-site 24/7
- Nursing on-site 24/7
- Medical monitoring
- Hours of operation
- Able to maintain work/school

Interventions

- Option for IV hydration, NG tube feedings, or treatment over objection
- Medical, psychiatric, or psychological management
- Group-based therapies
- Individual, family, and group-based psychotherapies
- Multidisciplinary team-based management
- Meal supervision and support
- Milieu therapy
- Nutritional management

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.

Rationale:

- Weight restoration is central to recovery and prognosis.
- Monitoring of weight is crucial and lack of weight gain indicates a need to modify the treatment plan.

ANOREXIA NERVOSA: WEIGHT RESTORATION

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Typical ranges of **weekly weight gain** vary with the treatment setting.

Suggested rate of weight gain by level of care	Pounds per week
Outpatient	1 to 2
Intensive outpatient	1 to 2
Partial hospital	1 to 3
Residential	2 to 4
Inpatient	2 to 4

- Higher level of care is usually needed if no progress after 6 weeks of treatment (e.g., average weight gain of 0.5-1 lb/week in patients with AN).

- Generally, the closer to patient's target weight before discharge, the less risk of relapse and readmission; also, less risk of relapse likely if patients maintain weight for a period of time before being discharged from inpatient or residential treatment.

ANOREXIA NERVOSA: WEIGHT RESTORATION, CONT.

Usually **start with 1,500-2,000 kcal/day, rapidly advance to 3,000-4,000 kcal/day** divided into meals and snacks and adjust further as needed.

- Usual formulas for calculating calorie requirements will typically underestimate caloric needs; patients are hypermetabolic during weight restoration.
- Involve registered dieticians in treatment.
- Increase dietary variety.
- Meal-based nutrition (regularly scheduled and monitored meals and snacks) is preferred over tube feeding.
- Calorie dense liquid supplements can be given in between meals.

ANOREXIA NERVOSA: REFEEDING SYNDROME

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With profound malnutrition, be alert to **signs of refeeding syndrome**.

- Hypophosphatemia occurs relatively frequently and is associated with recent rapid weight loss and a low BMI.
- Additional manifestations of refeeding syndrome are much less common but include rhabdomyolysis, seizure, and ultimately severe edema leading to heart failure.

Refeeding syndrome can be prevented by…

- continuing adequate nutrition;
- examining the patient for signs of heart failure;
- monitoring laboratory test values (e.g., glucose and electrolytes including magnesium and phosphorous);
- replacing phosphorous orally when clinically indicated.

ANOREXIA NERVOSA: MEDICATIONS

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Insufficient evidence to make recommendations about use of medications in weight restoration of AN

Olanzapine

- May be useful in selected patients to assist with weight gain.
- Consider potential adverse effects of olanzapine.

SSRIs or other antidepressants

- Relatively few risks and commonly used in individuals with AN to address co-occurring depression or anxiety disorders.
- Available evidence does not suggest an appreciable benefit, either in fostering weight gain in low weight patients or in reducing relapse in those whose weight has been restored.

ANOREXIA NERVOSA: MEDICATIONS, CONT.

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Bupropion

- Problematic for use in individuals with purging behaviors (e.g., laxative use, self-induced vomiting), given the increased risk of seizures observed in early clinical trials of high-dose immediate release bupropion. Purging may be surreptitious in AN.

Other meds

- E.g., citalopram, quetiapine, transdermal estradiol, human growth hormone, cisapride.
- Small studies with a high risk of bias or no substantial benefits.

Estrogens or bisphosphonates for bone health

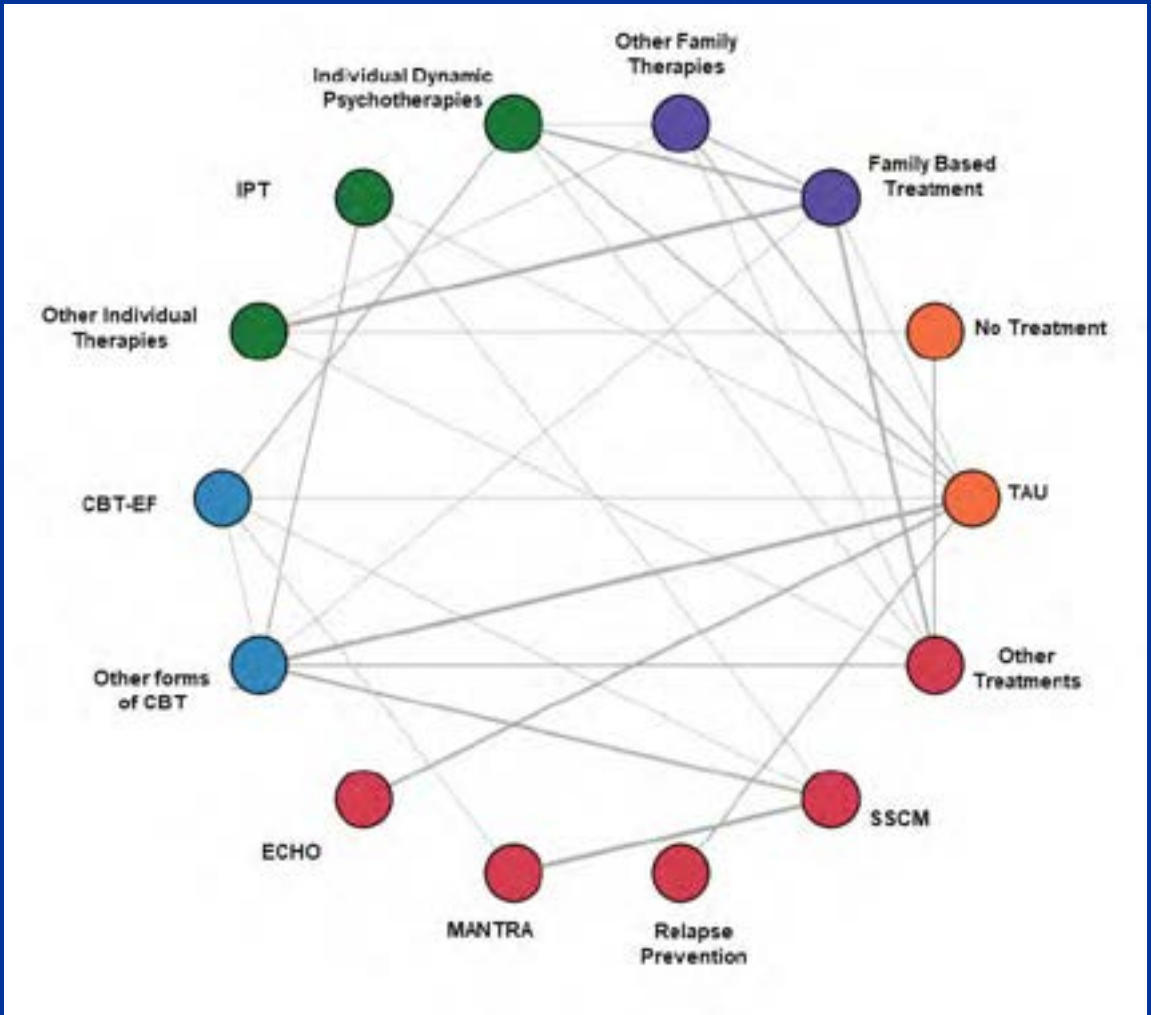
- Not routinely recommended, even in patients with > 6 months of amenorrhea.

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).

Rationale:

- Support from the expert opinion survey and from a network meta-analysis (NMA) of studies of psychotherapies in AN
- Use of psychotherapy can improve weight-related outcomes including change in BMI, change in weight, or the percent ideal body weight (%IBW) attained.

ANOREXIA NERVOSA: NETWORK META-ANALYSIS DIAGRAM FOR PSYCHOTHERAPIES



ANOREXIA NERVOSA: NMA FEASIBILITY AND CHARACTERISTICS OF PSYCHOTHERAPY STUDIES

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Outcome	Interventions: Total (NMA)	Studies: Total (NMA)	Trials per direct comparison	Subjects per comparison	Total Subjects in NMA
BMI change from baseline	12	17	1, except 3 for MANTRA vs. SSCM	12-134	1,426
Weight change from baseline	8 (6)	6 (4)	1	14-82	307
Percent ideal body weight	5	4	1	12-82	168
Depression change from baseline	8	5	1	34-128	N/A
Anxiety change from baseline	9	6	1	12-128	N/A
Study withdrawal	12	12	1-2	12-130	950
Mortality	11	6		20-134	N/A
Treatment adherence rate	8 (6)	5 (4)	1	16-72	459
Treatment discontinuation	9 (6)	5 (4)	1	16-82	354
Disease response, recovery/remission	10 (7)	7 (6)	1, except TAU vs. IndividualDyn with 2	15-82	688
Hospitalization	7	7	1	11-82	568
Eating disorder scale change	7	8	1-3	30-134	874
Social functioning change	6	5	1, except MANTRA vs. SSCM with 2	31-130	N/A
Quality of life	3	3			N/A

ANOREXIA NERVOSA: STATISTICALLY FAVORED COMPARISONS FROM NMA

Statistically favorable weight-related outcomes (i.e., BMI/weight change, %IBW)	Compared to No Treatment	Compared to TAU
Eating Disorder Focused CBT (CBT-EF)	✓	✓
Other forms of CBT	✓	
Family-based treatment (with parents in charge of eating)	✓	✓
Other family therapies	✓	
Maudsley Model of Anorexia Nervosa Treatment for Adults (MANTRA)	✓	
Individual dynamic therapies	✓	✓
Experienced Carers Helping Others (ECHO)	✓	
Relapse prevention therapy	✓	
Specialist Supportive Clinical Management (SSCM)	✓	
Other therapies	✓	✓
Treatment as usual (TAU)	✓	

ANOREXIA NERVOSA: PSYCHOTHERAPIES

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- **Psychotherapies with modest efficacy in treating AN in adults**
  - Cognitive-behavioral therapy (CBT; eating focused and broadly focused)
  - Focal psychodynamic psychotherapy (FPT)
  - Interpersonal therapy (IPT)
  - Maudsley Model of Anorexia Nervosa Treatment for Adults (MANTRA)
  - Specialist Supportive Clinical Management (SSCM)
  - Experienced Carers Helping Others (ECHO) - aimed at supporting carers of patients with AN but can also contribute to improved outcomes.

- Some approaches, such as family-based treatment in adolescents, may be time-limited; however, for individuals with AN of long duration, psychotherapy is frequently required for at least 1 year and may take many years.

ANOREXIA NERVOSA: COMPONENTS OF PSYCHOTHERAPIES

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

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.

Rationale:

- Support from the expert opinion survey and from an NMA of studies of psychotherapies in AN
- FBTs (with family in charge of the patients' eating) led to greater changes in BMI than no treatment and greater changes in %IBW than TAU.

ANOREXIA NERVOSA: FAMILY-BASED TREATMENT IN ADOLESCENTS AND EMERGING ADULTS

AMERICAN PSYCHIATRIC ASSOCIATION

Manual-based approach that considers the effects of severe weight loss as being central to the core psychology of AN

Parents oversee and take responsibility for nourishing the child or adolescent back to an optimal weight range; the therapist acts as knowledge expert and facilitator.

Not limited to family members; could involve other non-family caregivers with whom the patient resides

ANOREXIA NERVOSA: CLINICAL EXAMPLE

AMERICAN PSYCHIATRIC ASSOCIATION

- 24-yo female referred by her Gyn due to c/o anxiety and depression.
- Reports difficulty with insomnia, reduced concentration, but no change in appetite.
- Loss of 15 pounds in the past year. Notes that family was concerned about weight loss, but she felt she was simply eating healthier. Eats ~1,200 calories daily, avoids carbohydrates and red meat, and runs 90-120 min/day.
- Has significant demands from graduate school. Manages stress with journaling, baking, and running.
- Intermittent self-induced vomiting at age 16, but not since then. Never treated.
- Counseling in junior year of college for test anxiety, but no medications.
- No alcohol or substance use history.
- ROS - constipation, abdominal bloating, no endocrine disorders.
- Family history: Type 2 DM and untreated depression in mother, obesity in sister.
- Physical exam: 5’5” tall, 100 lbs (BMI 16.6).

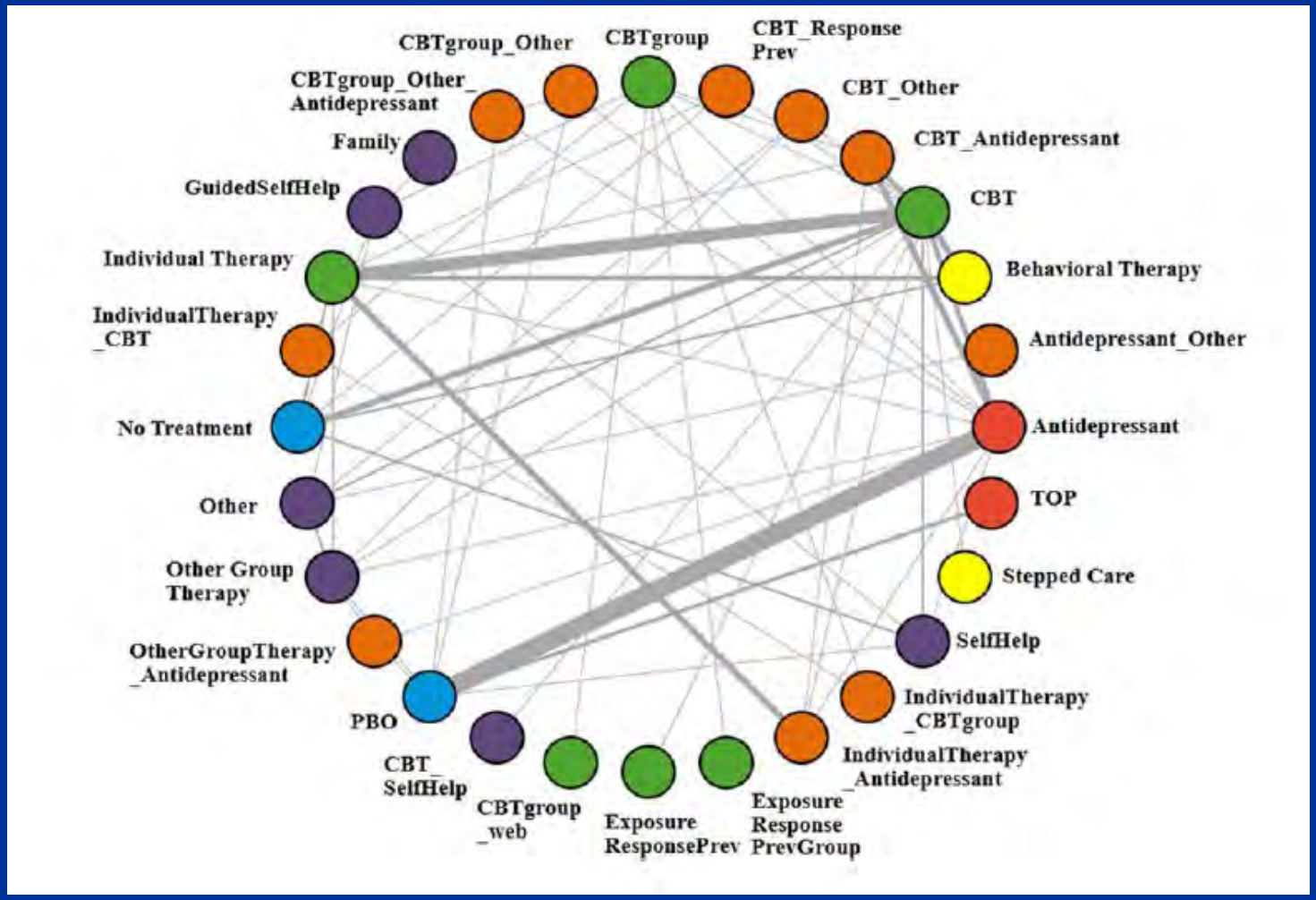
BULIMIA NERVOSA: CBT AND SSRI TREATMENT FOR ADULTS

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.

Rationale:

- CBT showed greater binge-eating and purging abstinence and reductions in the frequencies of binge eating and purging.
- CBT in combination with antidepressant medications also showed efficacy on these outcomes and on depression measures.

BULIMIA NERVOSA: NETWORK META-ANALYSIS DIAGRAM OF TREATMENTS



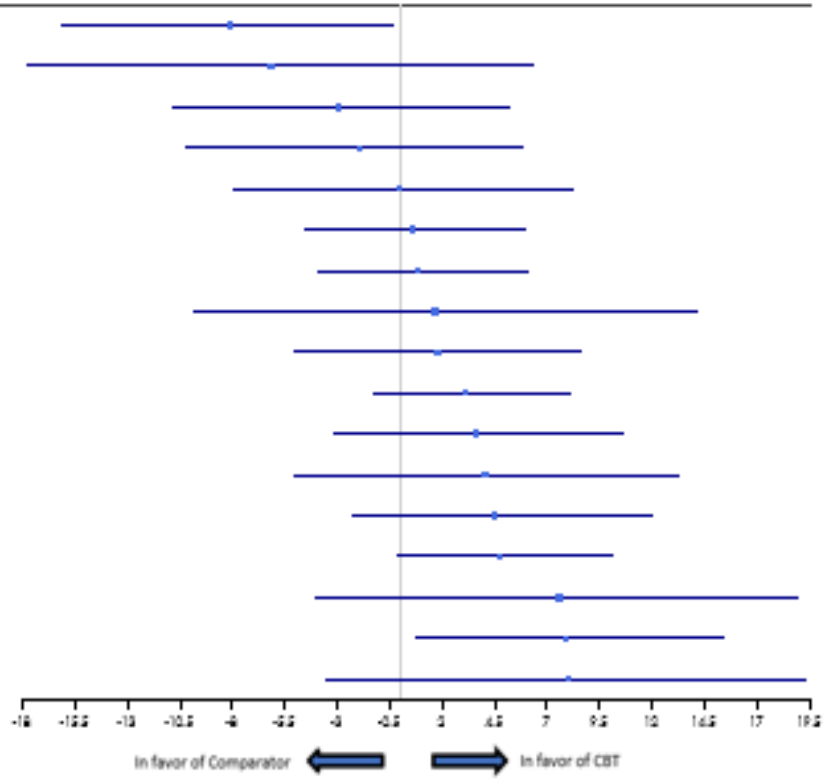
BULIMIA NERVOSA: NMA FEASIBILITY AND CHARACTERISTICS OF STUDIES

Outcome	Interventions: Total	Studies: Total	Trials per direct comparison	Total Subjects in NMA
BMI change from baseline	14	14	1-4	1,226
Weight change from baseline	7	8	1-4	695
Eating disorder scale change from baseline	17	20	1-5	2,245
Binge-eating abstinence	17	20	1-6	1,541
Binge-eating frequency change from baseline	17	31	1-8	2,863
Purging frequency change from baseline	11	11	1-5	790
Purging abstinence	6	5	1-2	272
Vomiting frequency change	17	23	1-3	2,241
Vomiting abstinence	12	10	1-2	1,003
Study withdrawal	26	21	1-7	2,528
Treatment discontinuation	15	10	1-4	1004
Disease response, remission/recovery	11	11	1-2	1,424
Depression scale change from baseline	16	27	1-4	2,370
Self-esteem change from baseline	10	9	1-3	558
Treatment adherence rate	6	2	1	160

BULIMIA NERVOSA: FOREST PLOT OF CHANGE IN BINGE-EATING FREQUENCY

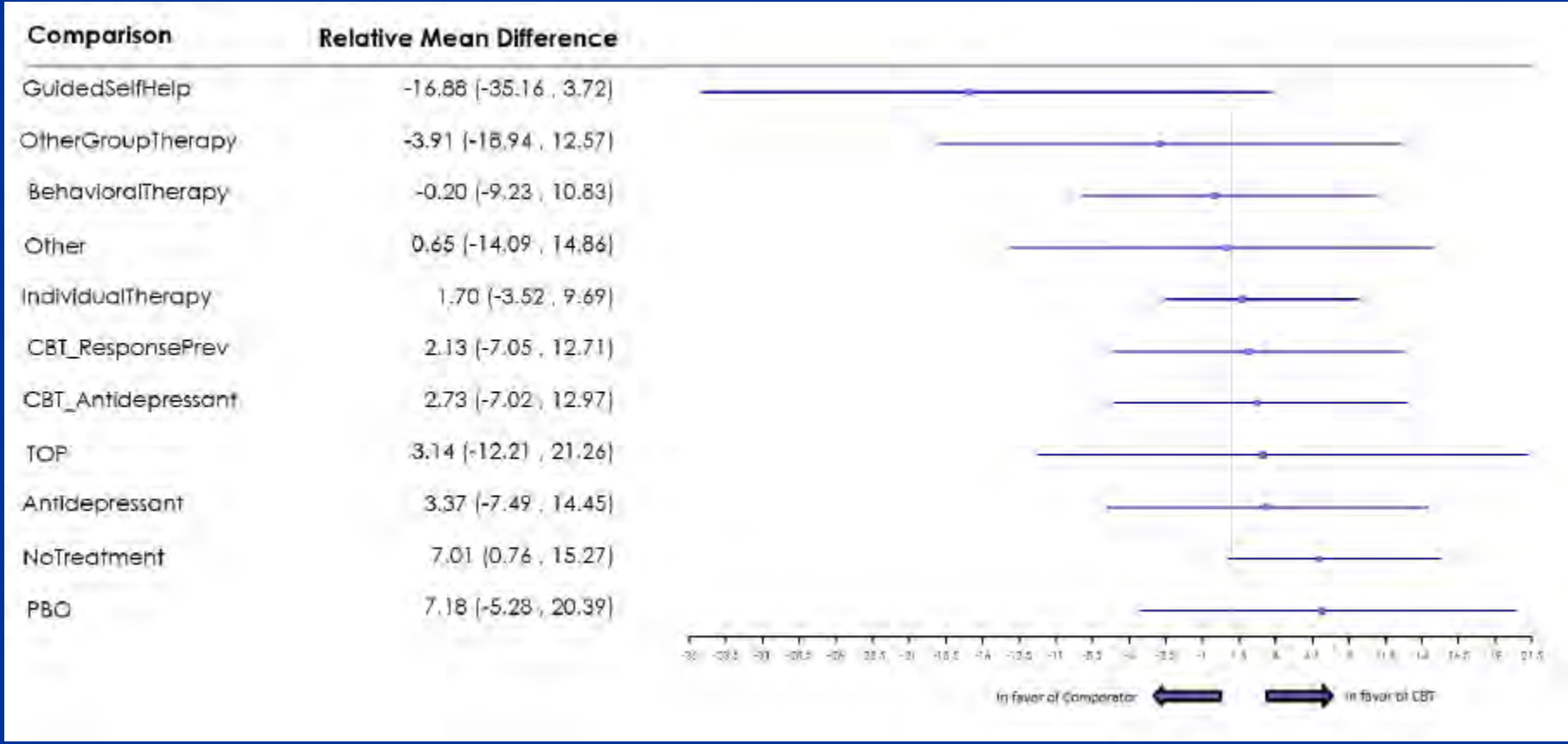
Change in binge-eating frequency in BN as compared to CBT

Comparison	Relative Mean Difference
IndividualTherapy_Antidepressant	-8.14 [-16.12 , -0.41]
GuidedSelfHelp	-6.17 [-17.69 , 6.33]
CBT_Other	-2.91 [-10.88 , 5.18]
CBT_Antidepressant	-1.95 [-10.17 , 5.78]
BehavioralTherapy	-0.02 [-7.95 , 8.23]
Other	0.56 [-4.50 , 5.89]
OtherGroupTherapy	0.87 [-3.90 , 6.07]
CBTgroup_web	1.67 [-9.86 , 14.09]
SelfHelp	1.80 [-5.06 , 8.58]
IndividualTherapy	3.08 [-1.31 , 8.10]
Antidepressant	3.63 [-3.07 , 10.61]
SteppedCare	4.04 [-4.99 , 13.19]
CBTgroup	4.51 [-2.24 , 11.97]
NoTreatment	4.73 [-0.09 , 10.07]
CBTgroup_Other_Antidepressant	7.57 [-3.98 , 18.89]
PBO	7.90 [0.76 , 15.42]
CBTgroup_Other	8.04 [-3.52 , 19.31]



BULIMIA NERVOSA: FOREST PLOT OF PURGING FREQUENCY

Purging frequency in BN as compared to CBT



BULIMIA NERVOSA: STATISTICALLY FAVORABLE EFFECTS BY TREATMENT

Intervention	Comparison	Outcomes	Statistical values
Antidepressants	Placebo	Binge-eating abstinence	RR 2.23 (1.47, 4.25)
	Placebo	Binge-eating frequency, all units	RMD -4.29 (-7.60, -1.07)
	Placebo	Binge-eating frequency, per week	RMD -3.54 (-5.51, -1.72)
CBT	No Treatment	Binge-eating abstinence	RR 4.97 (1.76, 15.29)
		Purging frequency, all units	RMD -7.01 (-15.27, -0.76)
		Purging abstinence	RR 11.15 (1.87, 132.66)
	Placebo	Binge-eating abstinence	RR 3.25 (1.37, 10.86)
		Binge-eating frequency, all units	RMD -7.90 (-15.42, -0.76)
		Binge-eating frequency, per week	RMD -7.77 (-12.30, -3.59)
		Study withdrawal	RR 0.29 (0.08, 0.94)
	Antidepressants	Binge-eating frequency, per week	RMD -4.24 (-8.13, -0.30)
		Study withdrawal	RR 0.25 (0.07, 0.73)
CBT+Antidepressant	No Treatment	Depression scales	RMD -11.74 (-21.90, -1.84)
	Placebo	Binge-eating abstinence	RR 2.70 (1.01, 7.09)
		Depression scales	RMD -5.52 (-10.58, -0.46)
		Binge-eating frequency, all units	RMD -9.88 (-18.68, -1.75)
		Binge-eating frequency, per week	RMD -8.37 (-14.04, -2.82)
CBT Group	No Treatment	Eating disorder scale	RR -17.47 (-33.02, -2.14)
		Binge-eating abstinence	RR 5.36 (1.02, 26.05)
		Depression scales	RMD -9.96 (-18.74, -1.57)
	Placebo	Binge-eating abstinence	RR 3.61 (1.02, 14.84)
		Vomiting frequency, all units	RMD -3.06 (-6.04, -0.29)
		Vomiting frequency, per week	RMD -7.02 (-13.85, -0.67)

BULIMIA NERVOSA: CBT AND SSRI

Initiating treatment with CBT alone vs. CBT plus an SSRI (e.g., fluoxetine 60 mg/day) will depend on factors such as symptom severity, co-occurring disorders, and patient preferences.

- **Fluoxetine** is a preferrable choice of SSRI based on the greatest strength of efficacy evidence in BN, independent of effects on mood.
- Bupropion is contraindicated for use in individuals with BN, given the increased risk of seizures with high-dose immediate-release bupropion.
- With lithium, caution is needed to avoid toxicity due to dehydration in patients who vomit or purge using laxatives.

BULIMIA NERVOSA: NUTRITIONAL INTAKE

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- Assess nutritional intake for all patients with BN regardless of their body weight or BMI because normal weight does not imply appropriate nutritional intake.
- A structured meal plan can be helpful to reduce episodes of dietary restriction and urges to binge and purge.
- Nutrition counseling with a registered dietitian nutritionist is often needed to implement the eating plan.

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.

Rationale:

- Use of FBT can improve outcomes, including binge eating and purging behaviors.

BULIMIA NERVOSA: FAMILY-BASED TREATMENT IN ADOLESCENTS AND EMERGING ADULTS, CONT.

FBT for BN is similar to the approach for AN with more focus on addressing the secrecy, shame, and dysfunctional eating patterns of BN by developing a collaborative relationship with parents or other carers.

If FBT is not feasible (e.g., due to access constraints, lack of family member engagement)

- CBT, either adapted for adolescents or using a therapist-led Guided Self-Help (GSH) approach, can be considered.
- Fluoxetine or other SSRIs have not been well studied to treat BN in adolescents; however, if considered, the potential benefits and risks of treatment should be discussed, and clinicians should attend to the box warnings relating to antidepressants in adolescents and young adults.

BULIMIA NERVOSA: CLINICAL EXAMPLE

- A 27-yo female presents for evaluation, stating “I have to get myself under better control”.
- Due to financial constraints from the COVID pandemic, she had to move back in with her parents.
- Starting in high school, she would binge on candy few times/month and force herself to vomit afterwards, is now binge eating and vomiting several times/week.
- She hid her behavior until her brother saw her vomiting into a trash can recently, which generated feelings of shame and desperation about her condition.

BINGE-EATING DISORDER: PSYCHOTHERAPY AND MEDICATIONS

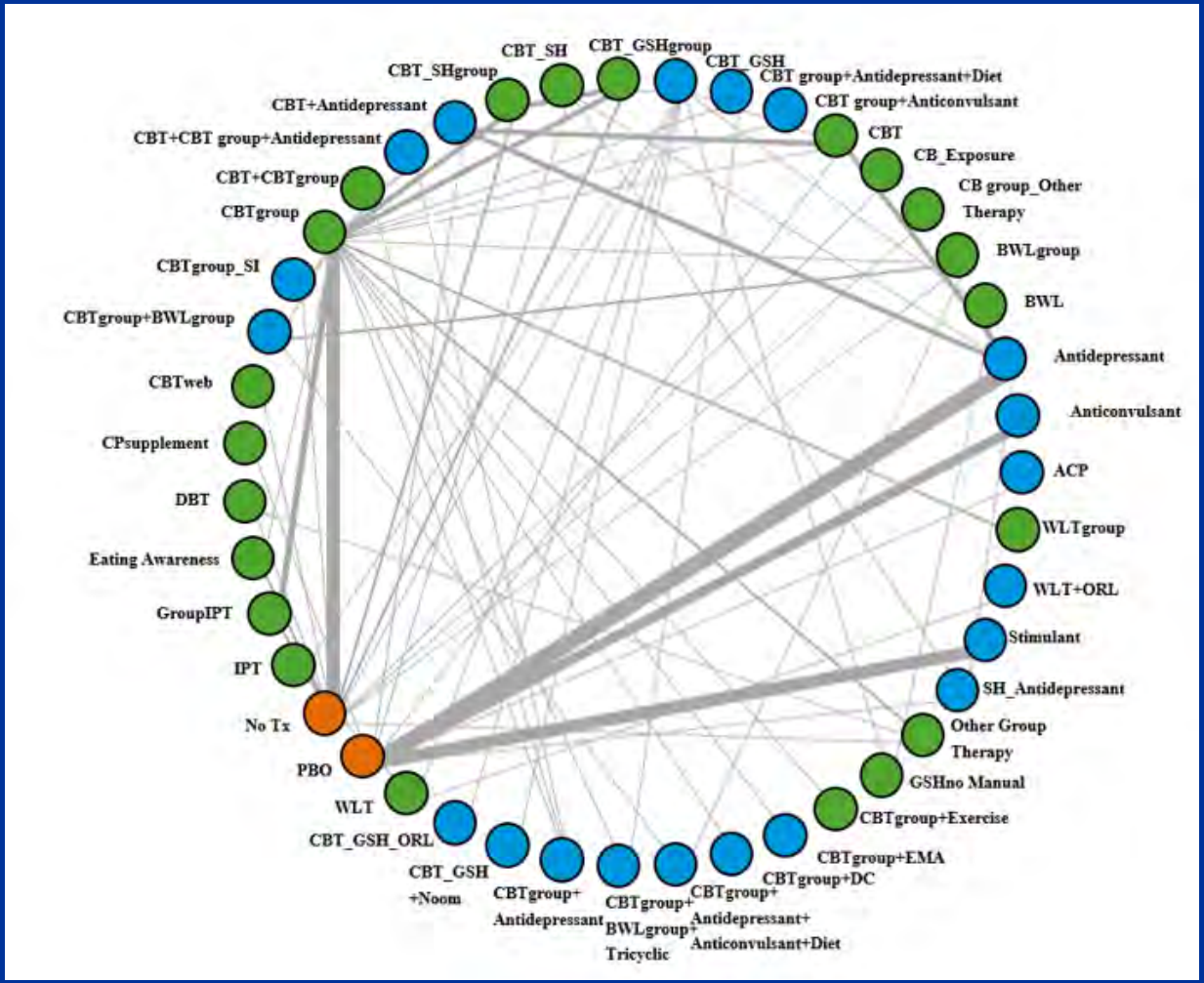
Statement 15 - APA recommends (1C) that patients with binge-eating disorder be treated with eating disorder-focused cognitive-behavioral therapy or interpersonal therapy in either individual or group formats.

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.

Rationale:

- CBT and IPT offer therapeutic benefits in BED, with small potential harm.
- Antidepressants can increase the likelihood of clinical improvement and enhance remission from BED.
- Lisdexamfetamine is also associated with an increased likelihood of clinical improvement and reductions in binge-eating episodes.

BINGE-EATING DISORDER: NETWORK META-ANALYSIS DIAGRAM OF TREATMENTS



BINGE-EATING DISORDER: CBT AND IPT

CBT is the most widely studied of psychotherapies for BED, but IPT also appears to be effective.

- Either in individual or group format
- Effects of web-based CBT and CBT-based GSH are modest in reducing binge eating but can be used as an initial approach, particularly if other BED treatments are not readily accessible.

BINGE-EATING DISORDERS: MEDICATIONS IN ADULTS

For adults with BED who:

- *prefer medication to CBT or IPT*
- *do not respond to psychotherapy alone*
- *have moderate to severe BED that may benefit from adjunctive pharmacotherapy:*

Option 1. Antidepressants

- NMA showed some benefit of medication alone or in combination with psychotherapy when compared to placebo or no treatment.
- Generally, no weight changes.
- Selection of an antidepressant through shared decision-making based on tolerability, side effect profile, and potential for drug-drug interactions.
- Tricyclic antidepressants and monoamine oxidase inhibitors are less likely to be used than other antidepressants due to side effect profile.

BINGE-EATING DISORDERS: MEDICATIONS IN ADULTS (CONTINUED)

AMERICAN PSYCHIATRIC ASSOCIATION

Option 2. Lisdexafetamine

- Generally, well tolerated.
- Initial dosage of 30 mg once daily in the morning, with increases in dosage of 20 mg/week to a therapeutic dosage of 50-70 mg once daily.
- No dosage adjustments needed for individuals with hepatic dysfunction, although drug-drug interactions can occur with other medications that are metabolized through CYP2D6 hepatic enzymes.
- Lower dosages for individuals with renal impairment (i.e., 50 mg/day maximum dosage for GFR 15 to < 30 mL/minute/1.73 m^2; 30 mg/day maximum dosage for GFR < 15 mL/minute/1.73 m^2 or in end-stage renal disease requiring hemodialysis).
- Caution and more frequent monitoring if used in individuals with hypertension or cardiac disease.

BINGE-EATING DISORDER: CLINICAL EXAMPLE

AMERICAN PSYCHIATRIC ASSOCIATION

- A 45-yo man is referred by his PCP for “eating problems” and consideration for bariatric surgery.
- Diagnosed with Type 2 diabetes this year.
- He describes being normal weight in high school but increased over years to 285 lbs (he is 5’9”).
- Recently has experienced increased knee pain, which has made it hard to work in his job as a bricklayer
- He was too embarrassed to tell his PCP about his uncontrollable binges of eating, well past fullness. He says: “I never vomit, but I’ll gorge on ice cream, cookies, chips, and fast food.”