

Bulimia in Adults: Information for Primary Care



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Summary: Bulimia nervosa is an eating disorder characterized by 1) binge eating, 2) purging behaviours such as self-induced vomiting and excess exercise, and 3) dysfunctional thoughts surrounding their weight and body shape. Patients with bulimia nervosa can easily be missed because patients appear normal (or overweight) and may not spontaneously report having symptoms of bulimia. Management of bulimia nervosa generally involves includes psychotherapy (such as CBT) and may include medications (SSRIs such as fluoxetine).

Case

Identifying data	D. is a 24-yo nursing student.
Chief complaint	Fatigue and menstrual symptoms.
HPI	Multiple stressors this year: Academics, challenges with virtual learning, and breakup with her boyfriend. Since the breakup, she has been trying to lose weight and exercise more. As a result, has been spending increased time online, including watching 'health influencers'. You ask her about what she is trying to do in order to be healthy, and she pauses uncomfortably...

Epidemiology

- Prevalence among young females 1-1.5% (DSM-5)
- 10:1 F:M
- Primary care physicians may encounter more patients with bulimia nervosa than anorexia nervosa because of its higher prevalence (Sim LA et al., 2010)
- Up to 70% recover with treatment (Roscoe C. 2015)

Clinical Presentation

Due to shame and secretiveness, patients do not often openly report problems with bulimic symptoms, and the lack of obvious physical signs can similarly make it harder to be detected by professionals. Patients may present to their physicians for other problems, such as:

- Seeking help for weight loss

- Physical symptoms
- Weight gain/loss
- Amenorrhea
- Fatigue
- Infertility
- Bowel irregularities
- Palpitations.
- Mental health
- Anxiety
- Depression

Typical Signs/Symptoms

Classic symptoms from bulimia nervosa include:

General	Dizziness, lightheaded, palpitations (due to dehydration, orthostatic hypotension, possibly hypokalemia)
Respiratory	Uncommonly aspiration pneumonitis or, more rarely, pneumomediastinum
Gastrointestinal	Pharyngeal irritation Abdominal pain (more common among persons who self-induce vomiting) Blood in vomitus (from esophageal irritation and more rarely actual tears, which may be fatal) Difficulty swallowing Bloating Flatulence Constipation / obstipation
Menstrual irregularities	Amenorrhea, or other problems with periods

Indications for Screening

Consider screening female patients who have the following risk factors

- Weight concerns
- Low self-esteem
- Depression/anxiety symptoms
- Obesity as a child and early pubertal maturation
- Family history of obesity
- History of sexual or physical abuse
- Certain occupations such as athletes, models, dancers

Screening Questions

- **2-item screener**

1. Do you ever eat in secret? ("Yes" is abnormal)
2. Are you satisfied with your eating patterns? ("No" is abnormal)

- Scoring: One abnormal response is 16% sensitive, whereas two positive responses is 91% sensitive; either warrants warrants further exploration (Freund, 1999).

- **5-items - The Eating Disorder Screen for Primary Care (ESP)**

1. Are you satisfied with your eating patterns? ("No" is abnormal)
 2. Do you ever eat in secret? ("Yes" is abnormal)
 3. Does your weight affect the way you feel about yourself? ("Yes" is abnormal)
 4. Have any members of your family suffered with an eating disorder? ("Yes" is abnormal)
 5. Do you currently suffer with or have you ever suffered in the past with an eating disorder? ("Yes" is abnormal)
- Scoring: A cutoff of 2 or more abnormal responses has been shown to be 100% sensitive with a specificity of 71%, and warrants further exploration (Cotton, 2003).

History

Gather the following history (which may take a few visits):

Goals	How can I be helpful?
HPI	When did the problems with eating start? How has it changed over time?
Stressors	What makes the eating worse?
Resiliency factors	What helps? Who are the people that help? What are the activities or things which give you belonging, purpose, hope, meaning?
Eating behaviours	Dietary rules or rituals Food avoidance Contents of meals and snacks (food record)
Compensatory behaviours	Purging Binge/purge cycles Excessive exercise Laxative use Medication use
Weight history	Lowest and highest weights (at current height) Perceived ideal weight
Menstrual history	Amenorrhea
Psychiatric comorbidities	Depression Anxiety Trauma Self-harm Suicidal ideation

Diagnosis

Essential features:

- Recurrent episodes of binge eating
- Recurrent inappropriate compensatory behaviours
- Self-evaluation that is overly influenced by body shape and weight
- Weight is typically within normal weight or overweight range

DSM-5 Criteria

1. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
 1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than what most individuals would eat in a similar period of time under similar circumstances
 2. A sense of lack of control over eating during the episode (feeling that one cannot stop eating or control what or how much one is eating)
2. Recurrent inappropriate compensatory behaviours in order to prevent weight gain, such as self-induced vomiting; misuse of laxative, diuretics, or other medications; fasting; or excessive exercise
3. The binge eating and inappropriate compensatory behaviours both occur, on average, at least once a week for 3 months
4. Self-evaluation is unduly influenced by body shape and weight
5. The disturbance does not occur exclusively during episodes of anorexia nervosa

Severity may be:

- Mild: 1-3 episodes of inappropriate compensatory behaviours / week
- Moderate: 4-7 episodes of inappropriate compensatory behaviours / week
- Severe: 8-13 episodes of inappropriate compensatory behaviours / week
- Extreme: 14+ episodes of inappropriate compensatory behaviours / week

Differential Diagnosis and Comorbid Conditions

Anorexia nervosa, binge-eating/purging type	Does the binge eating occur only during episodes of anorexia? • If so, then consider anorexia nervosa, binge-eating/purging type
Binge-eating disorder	Is there binge eating, but without inappropriate compensatory behaviours? If so, consider binge-eating disorder
Klein-Levin syndrome	Is there • Hypersomnolence (need for excessive sleep) (e.g. up to 20 hrs/day) • Hyperphagia (excessive food intake) • Behavioural changes (e.g. increased sexual drive) • Lack of concern about body shape / weight? If so, consider Klein-Levin syndrome .
Borderline personality disorder	Are there: • Significant problems with self-regulation? E.g. mood lability? Self-cutting? • Fears of abandonment in relationships? • Chronic feelings of emptiness? If so, consider: • Borderline personality disorder

Comorbidity

Most patients with bulimia nervosa have at least one other mental health concern:

- Depressive disorders
- Anxiety disorders (esp. GAD and social phobia)
- Substance abuse (alcohol and stimulant use)
- Personality disorders (most commonly borderline personality disorder)
- Impulsivity/ risk-taking behaviours

Physical Exam

General appearance	Appears healthy Within a normal or overweight range Hoarse voice due to reflux Decreased concentration and mood changes
Vitals	May be normal
HEENT	Permanent loss of dental enamel (especially lingual surfaces of front teeth) Teeth may become chipped and ragged "moth eaten" May have increased frequency of dental caries Parotid gland enlargement
Cardiac	Arrhythmias (due to electrolyte abnormalities) Palpitations and hypertension (due to diet pills) Cardiomyopathy with the use of the emetic agent 'Ipecac'
GI	Bloating and flatulence Constipation (due to laxative abuse) Hematemesis Esophagitis Reflux
Extremities	Russell's sign: Calluses (or scars) on the knuckles or back of the hand due to repeated self-induced vomiting over long periods of time Peripheral edema
MSK	Muscle cramps (hypokalemia)
Gyne	Amenorrhea or oligomenorrhea

Investigations

Bulimia nervosa is a clinical diagnosis, however, investigations may be helpful for evaluating medical complications. Laboratory abnormalities may occur due to purging:

- Fluid and electrolyte abnormalities - hypokalemia, hypochloremia, hyponatremia
- Metabolic alkalosis (high serum bicarbonate) due to loss of gastric acid
- Metabolic acidosis - frequent diarrhea or dehydration due to laxative and diuretic misuse
- Slightly elevated serum amylase
- Elevated BUN (dehydration)
- Hypoglycaemia
- Hypoestrogenism (associated with low bone mineral density)
- Consider ECG for arrhythmias and echocardiogram for cardiomyopathy

Management: Overview

Role of the primary care provider:

- Assess medical complications
- Monitor weight
- Monitor nutrition status
- Serve as care coordinator
- Provide mental health support
 - Supportive strategies include:
 - Validating strengths: "Since our last visit, tell me about what has been positive, or things you

have been grateful for?"

- Identifying negatives / stressors: "What has been negative or stressful?"
- Problem-solving ways to cope with stressors: "Any ideas on what we can do about those stressors?"
 - In primary care, the focus is not to go into details on how to problem-solve each stressor, but more to make sure there is a plan or supports in place to help the person with their stressors, e.g. speaking with a counselor/therapist, etc.

Treatment setting

- Outpatient-based treatment is preferred and hospitalization is not necessary for most patients with bulimia nervosa.

Treatment modality

- CBT combined with Fluoxetine treatment is superior to either treatment alone.

Indications for Hospitalization For Eating Disorder

Poor intake and/or weight loss despite less intensive treatments	Persistent decline in oral intake, or a rapid decline in weight (> 1 kg/week) in patients who have already lost more than approximately 20% of their individually estimated healthy weights, despite maximally intensive outpatient or partial hospitalization. Weight < 75% ideal body weight in child/adolescent <10% body fat or ongoing weight loss Rapid, progressive weight loss
Abnormal vital signs	Orthostatic hypotension with an increase in pulse of 20 bpm or a drop in standing blood pressure of >10-20 mmHg (within a minute from lying to standing) BP low < 90/60 mm Hg Postural change in BP > 20 mmHg with signs of hypovolemia Syncope Bradycardia: HR <40 bpm in adult; HR <45 bpm in child/adolescent Tachycardia: RR >110 bpm Hypothermic body temperature < 35.5°C or 95.5°F
Metabolic abnormalities such as fluid / electrolyte imbalances	Hyponatremia: Na <130 mmol/L, (normal 136-145) Hypokalemia: K < 2.3 mmol/L in adult; < 3.2 mmol/L in child (normal 3.5-5.10) Hypophosphatemia: Phosphorus below normal on fasting (normal 0.81-1.58) Magnesium <0.55 mmol/L (normal 0.74-1.03) Hypoglycemia: Serum glucose <2.5 mmol/L (normal 3.8-11)
Other medical indications	Severe depression with suicide risk Need for withdrawal from laxatives, diuretics or diet pills Intractable vomiting Esophageal tears, hematemesis Uncontrolled comorbid diabetes, to supervise food intake, exercise and insulin intake. Inadequate cerebral perfusion (e.g. confusion, syncope, altered level of consciousness). Pregnancy if it is felt that the fetus is at risk. Failure to respond to outpatient treatment.

Management: Psychological

Cognitive behaviour therapy (CBT) for Bulimia (Rushing JM et al., 2003):
3 phases in 20-week therapy

1. Education: help patients understand the disease and the actions perpetuating the situation with food records and binging/purging records
2. Broaden food choices and work on the dysfunctional thoughts concerning food and body

3. Maintenance and relapse prevention

Management: Medications

SSRI

- Fluoxetine (Bulimia Nervosa Collaborative Study Group, 1992)
 - Only drug approved by the FDA for the treatment of bulimia nervosa
 - Decreases binge eating and vomiting (4 weeks of treatment)
 - Dosage
 - Start at 10-20 mg daily, and titrate up to 60 mg daily
 - Maximum 60 mg daily

When and Where To Refer

Consider referring to an eating disorders program or eating disorders specialist if:

- Symptoms of the disorder are persistent
- Comorbid psychiatric or medical illnesses
- Risk of self-harm or harm to others

Case, Part 2

You wonder if your patient might have problems with eating.

You screen further and she reveals that she copes with her stress through eating (e.g. eating a bag of potato chips, or a box of ice cream), however afterwards, feels extremely guilty.

As a result, she vomits several times a day (after meals or binges) and compulsively exercises at least 2-hrs a day.

You become worried about her eating behaviours, but stop yourself from lecturing her to stop binging.

You ask more about her stress and she tells you that she is so stressed, that she copes by eating.

You agree with her that indeed, she must be under incredible stress, if she is having to do what she is doing.

She breaks down crying, saying that nobody else understands this, and that all her family members criticize her.

You give her a Kleenex and after crying she tells you that she actually feels better having had a chance to let out her feelings.

Her vitals are normal, and she does not have any acute signs of dehydration or electrolyte imbalance that would make you wonder about admission to hospital.

You schedule a follow-up for a week's time, at which time you will:

- Explore her symptoms further,
- Continue with a motivational interviewing approach, and
- Give her options.

Practice Guidelines

APA Practice Guideline for the Treatment of Patients with Eating Disorders Third Edition. June 2006.

Eating disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders. NICE Guidelines [CG9], published Jan 2004.

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