Financial Disclosures

Dr McElroy is a consultant for Bracket, F. Hoffmann-La Roche, MedAvante, Naurex, Novo Nordisk, Shire, and Sunovion and has received grant/research support from Alkermes, Cephalon, Forest, Marriott Foundation, Naurex, Orexigen Therapeutics, Shire, and Takeda.

Dr Guerdjikova has no personal affiliations or financial relationships with any commercial interest to disclose relative to this presentation.
Objectives

After watching this video, you should be able to:

- Recognize warning signs and clues to a possible binge eating disorder (BED) in your patients
- Educate patients about pharmacologic and nonpharmacologic strategies to manage BED
- Assess patients with BED for comorbid disorders such as mood and anxiety disorders
Prevalence and Features of BED
BED is the Most Common Eating Disorder in the United States

2.6% of US adults have BED at some point in their lifetime

60% of people with BED are female

40% of people with BED are male

What is BED?

BED is a disorder characterized by recurrent episodes of consumption of large amounts of food, associated with loss of control (binge eating episodes) without compensatory measures (purging).

Features of BED:

- Heritable: shared genetic factors with obesity and mood disorders
- Increased intake in binge and non-binge meals
- Increased gastric capacity/distention
- Neuroimaging abnormalities
- Abnormalities in neurotransmitter function
- Dysregulation in reward system
- Disinhibition, decreased impulse control

Heritability of BED

BED is Associated With...

- Overeating (night eating, grazing, loss of control) and weight gain
- Obesity, including severe obesity (BMI ≥40) and possibly metabolic syndrome
- Mood, anxiety, substance use, and impulse control disorders (eg, ADHD)
- Reduced quality of life and impairment in role functioning (comparable to bulimia nervosa)

Agh T et al. *Eat Weight Disord.* Published online ahead of print Jan 9, 2015.
BED: Medical Comorbidities

- >40% of obese patients with BED have metabolic syndrome\textsuperscript{1,2}
  - Elevated triglycerides
  - Abdominal obesity
  - Hypertension
  - Low HDL
  - Type 2 diabetes
  - 2x more frequent in men than women

- Headaches and chronic pain\textsuperscript{3}
- Fibromyalgia\textsuperscript{4}
- Irritable bowel syndrome\textsuperscript{4}

BED: Psychiatric Comorbidities

- National Comorbidity Survey Replication\(^1\)
  - 80% of people with BED meet criteria for at least 1 of the core *DSM-IV* disorders
  - ~50% meet criteria for ≥3
- Mood disorders\(^1,2\)
  - Major depressive disorder, especially atypical depression\(^3\)
- Bipolar disorders
- Anxiety disorders\(^1,2\)
  - Panic disorder, OCD, PTSD
- Substance use disorders\(^1\)
- Impulse control disorders\(^1\)
  - ADHD, oppositional defiant disorder, conduct disorder
- Suicidality\(^4\)

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Diagnosis of BED
DSM-5 Criteria for the Diagnosis of BED

General Presentation:

- Recurrent episodes of binge eating occurring at least once a week for 3 consecutive months*
- Eating a larger amount of food than normal during a short time frame (any 2-hour period)
- A sense of lack of control over eating during the binge episode (cannot stop eating or control type or amount of food)

*Change from DSM-IV criteria

DSM-5 Criteria for the Diagnosis of BED

Binge eating episodes are associated with ≥3 of the following:

- Eating much more rapidly than normal
- Eating until feeling uncomfortably full
- Eating large amounts of food when not physically hungry
- Eating alone out of embarrassment over quantity eaten
- Feeling disgusted, depressed, ashamed, or guilty after overeating

DSM-5 Criteria for the Diagnosis of BED

Additional characteristics:

- Marked distress regarding binge eating is present
- Binge eating is **not** associated with regular inappropriate compensatory behavior, such as purging or excessive exercise
- Binge eating does not occur exclusively during the course of bulimia nervosa or anorexia nervosa

Typical BED Presentation in a Primary Care Setting

- BED and depression are often comorbid
- Patients often ask for help for depression and weight gain rather than binge eating
- BED symptoms often increase during stressful situations, such as divorce
Treatment of BED
Most People With BED Remain Untreated

A minority of patients with BED have received treatment in the past 12 months or during their lifetime.

Standard of Care for BED Has Not Been Defined

- CBT (CBT-E) is considered gold standard in BED treatment
- Psychoeducation is imperative for good treatment
- Treatment needs to address shame, poor self-image, self-disgust, and other negative emotions and psychological issues
- Treatment for BED must be highly individualized

Goals and Treatments for BED and Its Comorbid Illnesses

<table>
<thead>
<tr>
<th>Target Pathology</th>
<th>Treatment Goals</th>
<th>Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating psychopathology</td>
<td>Reduce: binge eating episodes, obsessive/compulsive features of BED</td>
<td>CBT, IPT, DBT, Pharmacotherapy</td>
</tr>
<tr>
<td>Comorbid psychopathology</td>
<td>Reduce: anxiety and depressive symptoms</td>
<td>Pharmacotherapy, CBT, IPT</td>
</tr>
<tr>
<td>Excess adiposity</td>
<td>Prevent further weight gain or begin weight loss</td>
<td>Behavioral weight management, Pharmacotherapy, Bariatric surgery</td>
</tr>
</tbody>
</table>

CBT = cognitive behavioral therapy, DBT = dialectical behavioral therapy, IPT = interpersonal therapy
No consensus on treatment outcomes in BED:

- Response is often defined as a 50% to 75% or greater reduction in binge eating behavior
- Remission is often defined as cessation of binge eating for 28 days
- Currently, the field focuses on treating BED symptoms and not the weight issue, which is a debatable problem because many patients seek help for weight loss and not specifically for BED

Treatment goals:

- Reduce the frequency of eating binges
- Improve the patient’s emotional well-being
- Lose weight when necessary
- Define goals with patients and ensure they understand the complexity of the problem

Treatment Options for BED

- Psychoeducation, self-help strategies
- Empirically based psychological treatments
- Behavioral weight loss treatment
- Obesity surgery
- Pharmacotherapy
- Combination therapy

Psychoeducation

- Educate patients about BED
  - BED is a treatable medical condition
  - BED is NOT a sign of weakness or a character flaw
- Offer self-help treatment options
  - Self-help organizations (BEDA)
  - Self-help books (eg, *Overcoming Binge Eating* by C. G. Fairburn, *Crave: Why You Binge Eat and How to Stop* by C. M. Bulik)
- Explain that most people get better and many recover
- Emphasize that patients must put a high priority on taking care of themselves

Psychological Treatments

- Cognitive behavioral therapy (CBT), including guided self-help (CBTgsh) and CBT-E (CBT for Eating Disorders)
- Interpersonal therapy (IPT)
- Behavioral weight loss (BWL)
- CBT and IPT are more effective for binge eating than for weight loss
- CBTgsh and IPT are both more effective than BWL for binge eating

CBT-E

- The leading evidence-based treatment for all 3 types of eating disorders
- Suitable for a wide range of patients, including for some “complex patients”
- Highly acceptable to patients
- Requires trained staff and significant time commitment from patients and can be difficult to implement in patients with pronounced comorbidities
- Up to 80% abstinence rates have been reported

Essential Features of CBT-E for BED

- Requires a 6-month time commitment with initial bi-weekly visits to clinic
- Create a personalized diagram of the processes that maintain the eating disorder
- Establish real-time self-monitoring
- Introduce collaborative weighing
- Establish regulated eating and engage family in treatment if necessary
- Address barriers to change, such as dietary restrictions and over-evaluation of shape and weight

Treating BED

- Properly diagnose and treat the mood disorder (depression) first
- Assess eating symptoms regularly and collect data to support BED diagnosis (prior excessive dieting, weight history, history of long-lasting compromised relationship with food)
- Once depression is under control, focus on BED treatment (augment antidepressant with self-help/psychotherapy/pharmacotherapy)
- If BED is in consistent long-term remission and patient is educated on nutrition and lifestyle choices, weight eventually self regulates
Bariatric Surgery and BED

- BED is not a contraindication for bariatric surgery
- Surgery produces weight loss, metabolic improvements, and reduced binge eating
- Research is inconsistent; patients with BED either do as well as or more poorly than those without BED
- Surgery may have higher rates of post-operative complications, less weight loss, and more weight regain
- Clinicians need to address binge eating in pre- and post-operative care, including loss of control eating
Pharmacotherapy of BED

- Antidepressants (SSRIs, TCAs, bupropion)
  - Modest effect on binge eating and depressive symptoms; no clinically significant effects on weight (opposite for bupropion?)

- Sibutramine
  - Effective for binge eating, weight loss, and depressive symptoms; removed from market in 2010

- Topiramate
  - Effective for binge eating, obsessive-compulsive symptoms, and weight loss; side effects problematic

- Orlistat
  - Modestly effective for weight loss and possibly binge eating; side effects problematic

- Lisdexamfetamine
  - Studies show it to be superior to placebo in decreasing number of binge eating days per week
  - Only FDA-approved medication for moderate-to-severe BED

## Meta-Analysis of Antidepressants in BED (7 Studies)

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remission rate</td>
<td>Antidepressants (40.5%) &gt; PBO (22%); $P = .003$</td>
</tr>
<tr>
<td>Mean binge eating frequency</td>
<td>Antidepressants = PBO; $P = .06$</td>
</tr>
<tr>
<td>BMI</td>
<td>Antidepressants = PBO</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>Antidepressants &gt; PBO; $P = .03$</td>
</tr>
<tr>
<td>Adherence/treatment discontinuation</td>
<td>Antidepressants (27.5%) = PBO (22%)</td>
</tr>
</tbody>
</table>

Response of BED to Antiepileptics

- Drugs superior to placebo:
  - Phenytoin
  - Topiramate
  - Zonisamide

- Drugs not superior to placebo:
  - Lamotrigine (failed trial)
Other Drugs by Targeted BED Pathology

- Reduction in impulsivity/regulation of reward system function (including hedonic feeding behavior)
  - Atomoxetine, lisdexamfetamine, methylphenidate
- Reduction of cravings (alcohol, drugs, food)
  - Acamprosate
  - Opioid antagonists (eg, naltrexone, intranasal naloxone, and ALKS 33)
  - Baclofen (GABA analogue)
- Reduction of appetite and consumption
  - Psychostimulants, zonisamide
- Treatment of comorbidities
  - Duloxetine, bupropion (in combination with naltrexone)

Pharmacotherapy of BED: Future Research

- Stimulants/ADHD drugs/dopamine agonists
- Novel Antidepressants:
  - SNRIs (venlafaxine, milnacipran)
- Novel Anti-Obesity Agents:
  - Selective 5-HT receptor agonists (lorcaserin)
  - Topiramate & phentermine
  - Bupropion & naltrexone
  - Bupropion & zonisamide
  - Liraglutide
- Novel Antiepileptics
- Anti-Craving Agents:
  - Novel Anti-Opioid Compounds

Challenges of BED Treatment

- BED is under-recognized and underdiagnosed
- Providers and patients need education on BED and on avoiding stigma related to weight and mental illnesses
- Weight issues often precede BED diagnosis
- BED treatment requires commitment and resources
- Specialized psychotherapies are generally not effective for weight/obesity
- Bariatric surgery data is inconsistent
- Currently used medications are not effective for everyone and have unwanted side effects
Conclusion

- BED is a diagnosable but often untreated eating disorder
- Patients usually seek treatment for weight loss rather than BED
- BED is often comorbid with medical or psychiatric conditions such as metabolic syndrome and mood disorders
- Treatment options include psychoeducation, psychotherapy, bariatric surgery, pharmacotherapy, and combination strategies
- Treatment must be highly individualized

Thank you!
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