Recognizing Binge-Eating Disorder in the Clinical Setting: A Review of the Literature

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ABSTRACT

Objective: Review the clinical skills needed to recognize, diagnose, and manage binge-eating disorder (BED) in a primary care setting.

Data Sources: A PubMed search of English-language publications (January 1, 2008–December 11, 2014) was conducted using the term *binge-eating disorder*. Relevant articles known to the authors were also included.

Study Selection/Data Extraction: Publications focusing on preclinical topics (eg, characterization of receptors and neurotransmitter systems) without discussing clinical relevance were excluded. A total of 101 publications were included in this review.

Results: Although BED is the most prevalent eating disorder, it is underdiagnosed and undertreated. BED can be associated with medical (eg, type 2 diabetes and metabolic syndrome) and psychiatric (eg, depression and anxiety) comorbidities that, if left untreated, can impair quality of life and functionality. Primary care physicians may find diagnosing and treating BED challenging because of insufficient knowledge of its new diagnostic criteria and available treatment options. Furthermore, individuals with BED may be reluctant to seek treatment because of shame, embarrassment, and a lack of awareness of the disorder. Several short assessment tools are available to screen for BED in primary care settings. Pharmacotherapy and psychotherapy should focus on reducing binge-eating behavior, thereby reducing medical and psychiatric complications.

Conclusions: Overcoming primary care physician– and patient-related barriers is critical to accurately diagnose and appropriately treat BED. Primary care physicians should take an active role in the initial recognition and assessment of suspected BED based on case-finding indicators (eg, eating habits and being overweight), the initial treatment selection, and the long-term follow-up of patients who meet *DSM-5* BED diagnostic criteria.

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Binge-eating disorder (BED) received formal recognition as a distinct eating disorder in the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (*DSM-5*).[1] To be diagnosed with BED according to *DSM-5* criteria (Table 1), there must be recurrent binge-eating episodes, occurring ≥1 time per week for ≥3 months, that are characterized by the consumption of larger amounts of food in a discrete period than is typical for most people and a lack of control of eating during these episodes. Binge-eating episodes must be associated with at least 3 of the following symptoms: eating more rapidly than normal, eating until feeling uncomfortable, eating large amounts of food when not physically hungry, eating alone because of embarrassment over the amount of food being consumed, or having feelings of disgust, guilt, or depression following a binge-eating episode. There must also be marked distress over the presence of binge eating.[1] Unlike with bulimia nervosa (BN) and anorexia nervosa (AN), there are no recurrent inappropriate compensatory behaviors, such as excessive exercise or purging, in BED.[1] The binge-eating frequency criterion in the *DSM-5* is less stringent (at least once a week for 3 months)[1] than that used in the *DSM-IV-TR* provisional BED diagnostic criterion (at least twice a week for 6 months).[2]

BED is more prevalent than AN and BN, with estimates of the lifetime prevalence of BED ranging from 1.9% to 2.8%.[3,4] However, BED treatment rates are low. On the basis of data from the World Health Organization (WHO) World Mental Health Survey, <40% of individuals with a lifetime diagnosis of BED have ever been treated for an eating disorder.[4] Treatment rates for BED may be low because many primary care physicians (PCPs) find the diagnosis and treatment of BED challenging, and they have an insufficient knowledge of its new diagnostic criteria and treatment options.[5,6] Obesity is common in individuals with BED, with up to 43% of individuals with BED reported to be obese.[3,4]

Left untreated, BED presents a significant public health concern because the increase in the risk of comorbid medical conditions (eg, metabolic syndrome) is greater than the risk posed by obesity alone[7] and because BED is frequently comorbid with psychiatric disorders (eg, mood, anxiety, and substance use disorders).[8–11] Thus, it is important for PCPs to recognize the signs of BED and its comorbid disorders and to determine the most appropriate course of treatment.

METHODS

In this review, the clinical skills necessary to recognize and diagnose BED, the management of BED, and the evaluation of comorbid conditions are discussed. The review is based on a comprehensive search of PubMed, which included publications from January 1, 2008, to December 11, 2014. The search was restricted to the titles and abstracts of English-language articles and used the term *binge-eating disorder*. Publications focusing solely on preclinical topics (eg, characterization

Clinical Points

- Individuals with binge-eating disorder may exhibit medical and psychiatric comorbidities that can impair quality of life and functionality without adequate treatment.
- Overcoming primary care physician and patient-related barriers is critical to accurately diagnosing and appropriately treating binge-eating disorder.
- Primary care physicians should take an active role in the initial recognition and assessment of suspected binge-eating disorder, the initial treatment selection, and the long-term follow-up of patients who meet *DSM-5* diagnostic criteria.

of receptors, transmitters, and central nervous system pathways) without discussing the clinical relevance of the reported findings were excluded. Additional articles were also included on the basis of the authors' knowledge. A total of 101 publications were included in this review.[3,4,7–105]

RESULTS

Symptoms, Characteristics, and Timecourse of BED

Diagnostic criteria for BED are based on eating behaviors and characteristics and do not exclude individuals on the basis of body weight (ie, normal-weight individuals can meet diagnostic criteria for BED).[1] In brief, BED is characterized by recurrent binge-eating episodes that occur during a discrete period of time, consist of the consumption of more food than is typical of most people under similar circumstances, and are associated with feelings of loss of control over eating and marked distress.[1] To be diagnosed with BED, binge-eating episodes must occur at least once a week for a minimum of 3 months.[1] One study[12] in individuals diagnosed with BED characterized binge-eating episodes as being, on average, 42 minutes in duration and occurring approximately 9 times each week.

Defining characteristics of BED include a sense of lack of control[13] during binge-eating episodes and marked distress[14] over binge eating. Compared with obese individuals without BED, obese individuals with BED express greater feelings of loss of control during eating episodes, even after controlling for negative affect and total calories consumed.[13] Individuals with BED who exhibit marked distress over binge-eating behavior show increased eating disorder pathology compared to individuals who meet all BED diagnostic criteria except marked distress.[14] In addition, increased reward sensitivity to food-related stimuli has been reported in obese women with BED compared with both normal-weight controls and obese women without BED[15]; similarly, impulsivity in response to food-related stimuli is elevated in obese individuals with BED compared with normal-weight controls.[16] Obese individuals with BED also report higher scores for disorder-specific shame and guilt than obese individuals without BED.[17] Although overvaluation of shape and weight is not included among the *DSM-5* diagnostic criteria for BED, unlike in AN and BN, it has been demonstrated that overvaluation of shape and weight is reliably associated with the severity of eating pathology and has negative prognostic significance.[18]

Table 1. Summary of the *DSM-5* Diagnostic Criteria for Binge-Eating Disorder[a]

Criterion A. 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 (eg, within any 2-hour period), an amount of food that is definitely larger than what most people would eat in a similar period of time under similar circumstances
2. A sense of lack of control over eating during the episode (eg, a feeling that one cannot stop eating or control what or how much one is eating)
Criterion B. The binge eating episodes are associated with 3 (or more) of the following:
1. Eating much more rapidly than normal
2. Eating until feeling uncomfortably full
3. Eating large amounts of food when not feeling physically hungry
4. Eating alone because of feeling embarrassed by how much one is eating
5. Feeling disgusted with oneself, depressed, or very guilty afterward
Criterion C. Marked distress regarding binge eating is present
Criterion D. The binge eating occurs, on average, at least once a week for 3 months
Criterion E. The binge eating is not associated with the recurrent use of inappropriate compensatory behavior as in bulimia nervosa and does not occur exclusively during the course of bulimia nervosa or anorexia nervosa

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Abbreviation: *DSM-5 = Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition.

Diagnostic crossover between BED and BN has been reported to occur in some individuals, with roughly comparable percentages of individuals crossing over to BN from BED (20%) and to BED from BN (23%).[19] However, crossover between BED and AN is unusual, with the same study reporting no crossover to AN from BED or to BED from AN.[19] One distinguishing characteristic of BED compared with AN and BN is the lack of recurrent inappropriate compensatory behaviors (eg, purging, laxative use, excessive exercise) in response to binge eating.[1] However, individuals with BED also demonstrate a number of other distinguishing characteristics. For instance, a 2013 review[20] noted that when individuals with BED were asked to consume an amount of food with which they were comfortable and did not consider a binge, those with BED still ate more than controls, whereas those with BN ate less than controls, which suggests that BED may be associated with more overeating in general. Furthermore, obese women with BED (but not nonobese women with BED) have been reported to express less "drive for thinness" compared with individuals with BN.[21] However, given the lack of a significant difference between nonobese women with BED and women with BN regarding a drive for thinness, an influence of obesity on the reported difference between obese women with BED and women with BN cannot be excluded. In general, the prognosis for BED has been reported to be better than for BN, with higher percentages of individuals with BED no longer meeting diagnostic criteria at 15-, 30-, 45-, and 60-month follow-ups than individuals with BN, despite the fact that more individuals with BN sought treatment for

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their eating disorder.[22] BED also differs from BN in regard to its later age at onset and lower persistence.[4]

BED is not a subtype of obesity. Although BED is strongly associated with obesity, it is found across body mass index categories.[3,4] BED has been reported to cluster in families independent of the presence of obesity, and individuals with family histories of BED are at greater risk of obesity in adulthood than those with family histories of obesity and no BED.[23] Individuals with BED have also been shown to differ from obese individuals without BED in regard to the quantity of food consumed outside of binges and in the motivation to eat under stressful conditions.[24–26] Furthermore, individuals with BED who are obese exhibit more severe psychopathology than do obese individuals without BED,[27] but psychopathology does not differ between obese and nonobese individuals with BED.[28]

The symptoms of BED typically begin during adolescence or young adulthood,[1,4] with 1%–2% of adolescents experiencing BED.[29] On the basis of epidemiologic data from the WHO Mental Health Survey, the mean (median) age at onset for BED is 23.3 (19.3) years[4]; the age at onset of eating disorder symptoms has been reported to be older in BED than in BN or AN.[30,31] In the elderly, the characteristics of BED have been reported to be similar to those seen in younger adults. However, in elderly individuals, a later onset and a longer duration of illness has been reported.[32]

Across racial and ethnic groups, the lifetime prevalence of BED and the frequency of binge-eating episodes do not appear to differ substantially.[33,34] However, lifetime 12-month prevalence rates of BED have been reported to be higher in women than in men, although the gender ratio is more balanced compared to other eating disorders.[3,4] Hormonal fluctuations could be a factor influencing the higher BED prevalence rate in women. In a small study of unmedicated women with bipolar disorder who also met *DSM-IV-TR* criteria for BED, binge-eating episode frequency and severity increased the week before menses, and 80% of participants reported weight gain during menses.[35] However, it is unclear if these findings would generalize to women with BED who do not have comorbid bipolar disorder.

Medical Comorbidities Associated With BED

In addition to its core eating disorder psychopathology, BED is associated with general medical and psychiatric comorbidities and with increased mortality relative to individuals who do not have eating disorders.[7,36–38] Individuals with BED are at an increased lifetime risk for developing type 2 diabetes and hypertension compared with individuals without eating disorders.[39,40] The risk of type 2 diabetes in individuals with BED was found to be elevated in males and in African Americans on the basis of multivariate regression analyses that included factors such as weight and age.[36] Among individuals at risk for developing components of metabolic syndrome, individuals with BED reported higher 5-year rates of hypertension, dyslipidemia, type 2 diabetes, any metabolic syndrome component, and 2 or more metabolic syndrome components than individuals without BED.[7] Although data related to sleep in a general population of individuals with BED are not available, sleep has been reported to be disturbed in women with BED, in whom a higher frequency of sleep problems before and during pregnancy and for 18 months after childbirth is observed relative to women who do not exhibit BED symptoms.[37]

Psychiatric Comorbidities and Psychological Aspects Associated With BED

Psychiatric comorbidities are also associated with BED. In a systematic review,[41] 10 of 14 studies reviewed noted an association between depression and BED. Across studies,[8,9,11,42–44] approximately 30%–80% of individuals with BED have lifetime comorbid mood or anxiety disorders. Other psychiatric comorbidities and personality disorders reported in individuals with BED or eating disorders include gambling problems, bipolar disorder, and substance abuse, as well as avoidant, obsessive-compulsive, and borderline personality disorders.[11,45–49]

Compared with healthy individuals without an eating disorder, individuals with BED also show impairment in aspects of psychological well-being, including autonomy, environmental mastery, self-acceptance,[50] and emotional regulation.[51] In addition, though not a diagnostic criteria, overvaluation of shape and weight is reliably associated with eating pathology severity, psychological distress, and negative prognostic significance in individuals with BED.[18]

Impaired mental health in individuals with BED may also have direct consequences on suicidal behavior. In 1 study,[52] women with BED and comorbid depression had higher rates of suicide attempts and completion than individuals with BED but without major depression. In another study,[53] nearly 30% of individuals with BED reported suicidal ideation, especially those with alexithymia and depressive symptoms.

Quality of Life and Functional Impairments Associated With BED

Quality of life (QoL) is impaired in individuals with BED.[54–56] In 1 study,[54] patients with BED reported lower scores on multiple components of the Medical Outcomes Study Short Form 36-item Health Survey compared with a normative US sample and with obese individuals without BED. Additionally, obese individuals meeting criteria for BED have demonstrated significant reductions in QoL in areas of physical and mental health, cognitive function, and social interaction compared with obese individuals without BED and nonobese individuals with or without BED.[55]

Consistent with reported reductions in QoL, multiple studies[10,54,55,57–61] have shown that functional impairment is observed in BED. In 1 study,[60] impaired mental QoL was related to depressive symptoms and impaired physical QoL was related to walking ability. In another study,[61] overall impairment in general functioning in individuals with BED was correlated with poor body image attitudes and a lack of physical activity. On the basis of data from the large WHO Mental Health Survey,[4] 46.7% of individuals with BED

Table 2. Case-Finding Indicators for Binge-Eating Disorder in Primary Care Practices

Individual/physical
• Obesity[a,3,4,30,31]
• Weight gain (≥ 5% of body weight) in the year before seeking treatment[64,65]
• Reluctance to discuss eating habits[17,66]
• Female[3,4]
• Hypertension[7,40]
• Dyslipidemia, type 2 diabetes, any metabolic syndrome component, and 2 metabolic syndrome components[7,39]
Psychological
• Psychiatric disorders (eg, mood disorders, anxiety disorders, bipolar disorder, gambling problems, and substance abuse disorders)[8–11,45–48]
• Personality disorders (eg, avoidant, obsessive-compulsive, and borderline personality)[49]
• Suicidal ideation and attempts[52,53]
• Role impairment (eg, on the Sheehan Disability Scale)[4]
• Sleep problems before and during pregnancy and for 18 months after childbirth[37]
• Exposure to traumatic life events or life stressors (eg, death of or separation from a friend of family member, termination of a relationship, history of physical abuse, accident)[67,68]
Family/relationships
• Childhood obesity and familial eating problems[23,69]
• Family history of binge-eating disorder independent of obesity[23]
• Parent with a mood disorder or substance use disorder[69]
• Histories of family discord, high parental demands or parental perfectionism, and parental separation[69]
• Pregnancy, especially in women who worry about or overvalue pregnancy-related weight gain[70]

[a]Many individuals with binge-eating disorder are not obese.[3,4]

Table 3. Suggested Diagnostic Questions to Identify Binge-Eating Disorder

Do you think you eat more food than the average person your age? How much do you typically eat during the average day?
Do you experience feelings of loss of control over your eating and marked distress when you think about your eating habits?
How often (ie, times per week) do you binge eat?
Do you experience guilt or shame during or after an episode of binge eating?
Do any other members of your family have eating problems?

reported "any role impairment" and 13.2% reported "severe role impairment" on the Sheehan Disability Scale. Similarly, data from the same WHO survey indicated that early onset BED was associated with reduced odds of marriage among women (but not among men) and reduced odds of employment among men (but not among women).[62]

Risk Factors and Case-Finding Indicators Associated With BED

Although evidence suggests that BED has a strong genetic component,[23] both genetic and environmental risk factors contribute to the development of BED. In a study of twins,[23] 59% of the variance in the core *DSM-IV* features of BED (ie, binge eating in the absence of compensatory behavior and diagnosis of AN or BN) were accounted for by environmental factors.

It is important for PCPs to consider these indicators when identifying suspected cases of BED in their practice. BED often co-occurs with obesity and type 2 diabetes,[7] with binge-eating severity being one of the predictors for comorbidity.[36] Given the poor prognosis for individuals with comorbid diabetes and eating disorders, it is recommended that individuals with diabetes be routinely assessed for an eating disorder.[63] Table 2 lists case-finding indicators for BED.

Other specific indicators for BED include childhood obesity and familial eating problems[23,69] and having a parent with a mood disorder or substance use disorder[69]; a parental history of substance use disorder is associated with an earlier age at onset of BED.[71] Exposure to traumatic life events or life stressors (eg, death of or separation from a friend or family member, termination of a relationship, history of physical abuse, accident) also increases the risk of BED and is likely to have occurred prior to the onset of symptoms.[67,68] Histories of family discord, high parental demands or parental perfectionism, and parental separation are also reported to increase the risk of BED.[69] In a Norwegian study,[70] the stress of pregnancy was associated with increased BED risk, with factors such as worrying about and overevaluation of pregnancy-related weight gain increasing the risk of BED. The consequences of BED in pregnant women are important. Pregnant women meeting criteria for BED have been reported to consume more calories but fewer nutrients (including vitamin C and folic acid) and to gain weight faster during pregnancy than pregnant women not meeting criteria for BED,[72,73] possibly negatively affecting fetal development.

The PCP's Role in Recognizing and Diagnosing BED

Patients who are not obese[3,4] may engage in bingeing and qualify for the diagnosis of BED, but binge eating disorder is prevalent among individuals seeking weight loss treatment.[43] Individuals with BED often gain weight (≥ 5% of their body weight) in the year before seeking treatment.[64,65] In addition, in a survey[66] of individuals who were either diagnosed with BED or undiagnosed despite meeting *DSM-5* criteria for BED, a majority of survey respondents reported seeing a general physician for their binge-eating–related symptoms. Therefore, PCPs, who often provide weight management care, are well positioned to identify patients with BED. Unfortunately, obese individuals with BED seeking medical attention from PCPs may focus on weight management rather than on their binge-eating behaviors.

While the effectiveness of screening all patients in primary care settings has not been evaluated, case finding among those at increased risk (Table 2) is a reasonable strategy. PCPs should consider their patients' clinical history, including dietary and weight issues, to determine if risk factors for BED are present. As is true for other eating disorders, the most productive habit a PCP can adopt is to routinely ask about eating habits (Table 3) and to monitor changes in body weight as a part of a complete patient history (for instance, during the review of systems).

Identification of BED is hindered by a general lack of assessment of weight and body mass index (BMI) by PCPs during routine visits. A survey of PCPs suggested that BMI

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was calculated rarely or never by 40% of PCPs; 42% of PCPs have never assessed their patients for BED.[74] Assessing weight, BMI, and weight gain, however, is not sufficient to lead to the recognition of BED. Because shame and guilt are frequently observed in individuals with BED and can act as barriers to communicating about binge-eating symptoms,[17,66] a reluctance to discuss eating habits may be a red flag for BED. Furthermore, many patients may not present with the chief complaint of an eating disorder or with signs of an eating disorder upon physical examination.[75] Those individuals who do seek treatment for an eating disorder are often prompted by increased symptom severity, psychological distress including a sense of lack of control, interference with daily life, comorbid health conditions, and a desire to "get better."[76] However, these patients may focus on the BED-associated comorbidities as opposed to problematic eating behaviors[76]; therefore, the PCP needs to uncover the course of the patient's issues to discern the antecedent condition.

Case-Finding Assessment Tools

Of the validated diagnostic and case-finding tools, the Eating Disorders Examination–Questionnaire[77] and the Questionnaire of Eating and Weight Patterns–Revised,[78] are 2 self-report instruments that may be used in primary care settings to assess eating disorders.[79] It has also been reported that, in instances where a face-to-face clinical interview is not possible, the Eating Disorder Questionnaire–Online version may be an acceptable alternative.[80] Although there are multiple diagnostic tools that can be used to assess BED, many are unlikely to be used in clinical settings because they are cumbersome. To that end, several short assessment tools (ie, the Eating Disorder Screen for Primary care,[81] the 7-item Binge Eating Disorder Screener [BEDS-7],[82] and the Eating Disorder Assessment for the *DSM-5*,[83]) have been developed that may be of more utility in primary care settings. However, only the BEDS-7[82] is specific for BED.

Available tools are based on interviews and subject reports, which can be time consuming to implement. The limited time available to PCPs during routine office visits may diminish the ability to utilize these tools for case finding. The early recognition and identification of a potential BED diagnosis is important because it may mitigate the long-term impact of BED in the patient. As such, eating disorder specialists need to consider developing time-efficient assessment tools that PCPs can use to effectively identify BED. If PCPs are unable or lack confidence in their ability to make a definitive diagnosis, the patient should be referred to a mental health specialist with experience in diagnosing and treating eating disorders.

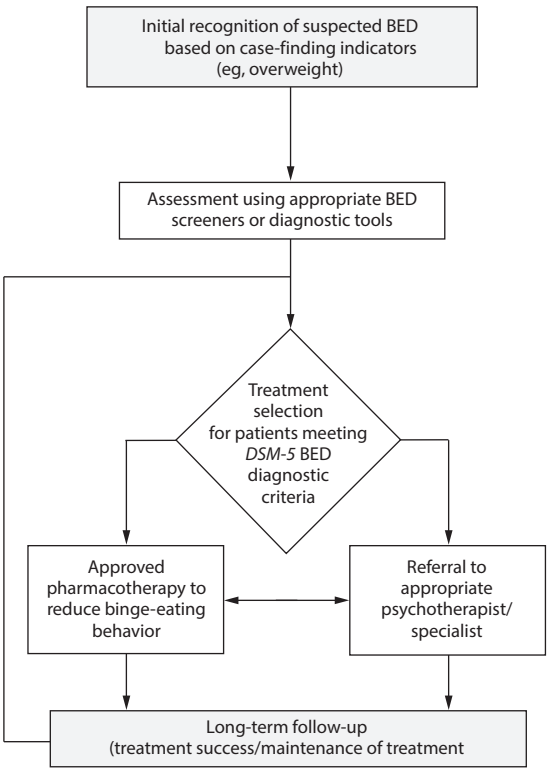
Treatment and Long-Term Management of BED

Many patients with BED remain undiagnosed and, if managed at all, have received delayed treatment or inadequate treatment.[84] Whatever strategy the PCP uses to recognize and diagnose BED, taking care to convey a nonjudgmental interest in helping the patient, communicating that eating disorders (including BED) are of medical concern and amenable to treatment, and using motivational interviewing principles to establish agreed-upon treatment goals and gain adherence with care are likely to be helpful. The PCP is ideally positioned to integrate treatment of BED with that of obesity and other conditions such as diabetes or depression. The main goal of BED treatment should be to reduce binge-eating behavior, not to promote weight management or weight loss, and thereby reduce the risk of medical and psychiatric complications.

After confirming a diagnosis of BED, the PCP should play an active role in the initial treatment selection, including prescribing approved pharmacotherapy and referring patients to an appropriate specialist who can provide psychotherapy. The PCP should also be the primary treatment coordinator, manage medical complications, and help determine the need for inpatient hospitalization for potential comorbidities or suicidality. Although PCPs with adequate training can initiate and manage the treatment of BED without a referral, because of the high incidence of comorbid psychiatric disorders in individuals with BED, referral to a mental health professional should be considered for a thorough evaluation and the subsequent management of comorbidities. Lastly, PCPs should take a leading role in the long-term follow-up of their patients with BED, including assessment of initial treatment success and the maintenance of treatment.

There are several treatment options that have been studied in adults with BED; however, there is a general lack of treatment and intervention studies in adolescent and young adult populations.[85] Psychotherapy has demonstrated benefit in the treatment of BED. In general, cognitive-behavioral therapy (CBT), interpersonal therapy, and dialectic therapy reduce binge-eating behavior, associated eating disorder psychopathology, and depressive symptoms without producing clinically meaningful weight loss.[86–89] At least 1 study[90] reported that the frequency of binge eating in individuals provided with a self-help version of CBT in combination with usual care was not significantly different compared to those provided usual care alone. In another study,[31] CBT resulted in a higher remission rate from eating disorder symptoms in individuals with BED compared with individuals with BN despite the fact that individuals with BED had a higher rate of treatment discontinuation. Overall, a meta-analysis[91] of clinical trials of psychotherapy (a majority of which were CBT trials) and structured self-help in adults with BED reported statistically significant effect sizes (95% CI) for reductions in binge-eating frequency versus controls (psychotherapy: 0.82 [0.41–1.22], structured self-help: 0.84 [0.37–1.30]) and versus pretreatment values (psychotherapy: 1.46 [1.12–1.80], structured self-help: 1.09 [0.67–1.50]) but not for reductions in body weight. Lisdexamfetamine dimesylate is currently the only pharmacotherapy approved by the US Food and Drug Administration for the treatment of BED; it

Figure 1. Overview of the Roles of Primary Care Physicians in the Recognition, Assessment, and Treatment of Binge-Eating Disorder (BED)



Abbreviation: *DSM-5* = *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition.

is approved for the treatment of adults with mild to moderate BED.[92] In a phase 2, randomized, placebo-controlled study, significantly greater reductions in binge-eating days per week were observed with lisdexamfetamine dimesylate than with placebo.[93] In 2 large, identically designed, phase 3 registration trials, dose-optimized lisdexamfetamine dimesylate produced clinically meaningful and statistically superior reductions in binge-eating days per week compared with placebo (the primary efficacy endpoint) in adults with protocol-defined moderate to severe BED.[94] In the phase 3 studies,[94] lisdexamfetamine dimesylate treatment also resulted in statistically greater response than placebo on outcomes of global improvement in BED pathology on the Clinical Global Impressions–Improvement scale, on 4-week cessation of binge eating, on BED-related obsessive and compulsive psychopathology as measured on the Yale-Brown Obsessive Compulsive Scale Modified for Binge Eating, on the percent weight reduction from baseline, and on fasting triglycerides.

Several other pharmacotherapies have been investigated for the treatment of BED.[95] Antidepressants, including selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors, have been examined in several randomized controlled clinical trials[32,87,96–99] with varied success. In a meta-analysis of placebo-controlled trials, the antidepressants citalopram, fluoxetine, fluvoxamine, imipramine, and sertraline produced greater remission rates than placebo, but there was substantial variability across studies, and consistent reductions in binge frequency or weight loss compared with placebo were not reliably observed.[100] The anticonvulsant topiramate significantly reduced binge frequency and weight compared with placebo in 2 randomized, placebo-controlled studies.[101,102] The weight loss drug orlistat produced significantly greater weight loss and produced greater reductions in some aspects of eating pathology than did placebo in obese individuals with BED.[103] Treatment with the anorexiant sibutramine significantly reduced binge-eating days per week and produced greater weight loss than placebo in individuals with BED,[104] but this agent has been withdrawn from the market as a result of increased cardiovascular risk in individuals with preexisting cardiovascular conditions.[105]

CONCLUSION

Although BED is the most common eating disorder,[3] it often goes unrecognized, undiagnosed, and untreated. This may be because it only recently received official designation as an eating disorder in the *DSM-5*. Left untreated, BED may negatively impact QoL and functionality. BED is also associated with a number of physical and mental comorbidities. Therefore, despite limitations of time, it is important for PCPs to be aware of risk factors that increase the likelihood of BED; take thorough patient histories, which include assessments of eating habits and changes in body weight; and pursue further case finding among those at increased risk for BED. Despite showing similar psychopathology, nonobese individuals with BED tend to be younger and more reluctant to seek treatment; in these individuals, early recognition is particularly important. To aid in diagnosis, time-efficient case-finding tools can be utilized by PCPs.

Figure 1 provides a schematic overview of the roles of PCPs in the initial recognition and assessment of suspected BED symptoms based on case-finding indicators (eg, eating habits and being overweight, see Table 2) and the initial treatment selection and long-term follow-up for those patients who meet *DSM-5* diagnostic criteria. In brief, if BED is suspected, diagnostic evaluations should assess the presence of BED symptoms and also medical or psychiatric comorbidities. The PCP should also be aware of traumatic life events or the presence of life stressors and evaluate how the patient is handling these life stressors. After considering initial treatment options, referral to the appropriate mental health professionals or multidisciplinary management with these specialists is recommended as necessary. The management of BED should focus on reducing binge behavior through a multidimensional treatment plan, which potentially includes the use of approved pharmacotherapy and the appropriate psychotherapy. Regardless of treatment selection, PCPs should take a lead role in the long-term follow-up to assess treatment success and maintenance.

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Drug names: citalopram (Celexa and others), fluoxetine (Prozac and others), fluvoxamine (Luvox and others), imipramine (Tofranil and others), lisdexamfetamine (Vyvanse), orlistat (Xenical), sertraline (Zoloft and others), topiramate (Topamax and others).

No trade: sibutramine.

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