Psychological and Behavioral Treatments for Binge-Eating Disorder

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Several psychological and behavioral treatment options exist for patients who have been diagnosed with binge-eating disorder (BED). Cognitive-behavioral therapy and interpersonal psychotherapy are the most strongly supported interventions for BED, but they do not produce weight loss; behavioral weight loss therapy, a more widely available "generalist" intervention, achieves good outcomes for BED plus produces modest weight loss over the short-term. Relatively little is known about reliable predictors or moderators of treatment outcomes, but research has generally supported 2 significant predictors: (1) the presence of overvaluation of body shape and weight and (2) the occurrence of rapid response to treatment. Clinicians should train to provide patients with evidence-supported psychological and behavioral treatments and follow these intervention protocols faithfully to increase the chances of good outcomes.
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The diagnostic criteria for binge-eating disorder (BED) include both psychological and behavioral features.[1] Binge eating, ie, consuming unusually large quantities of food while experiencing a sense of loss of control, is the core behavior. Marked distress regarding the binge-eating behaviors is the required psychological criterion. Patients with BED may have maladaptive attitudes, cognitions, and behaviors regarding many aspects of their eating and their body image (eg, how they perceive or evaluate themselves based on their weight and shape, preoccupation about food or eating). To address these attitudes, cognitions, and behaviors, several psychological and behavioral treatment options are available, each with relative strengths and weaknesses.

A number of psychological treatments have been developed and tested for patients with BED, some modified from therapies used initially to treat bulimia nervosa, another formal eating disorder characterized in part by binge-eating behaviors.[2] Leading treatments include cognitive-behavioral therapy (CBT), interpersonal psychotherapy (IPT), and—to a lesser extent—dialectical behavioral therapy (DBT). In addition, support exists for certain behavioral weight loss (BWL) treatments developed originally for obesity.[2,3]

PSYCHOLOGICAL TREATMENT

The basis of the CBT model is that certain cognitions and attitudes regarding the importance of weight and shape influence how we feel about our bodies and our self-worth, and these beliefs may lead to maladaptive or restrictive dieting, which—in turn—may lead to binge eating.[2,4,5] The basis of the IPT model is that some people have difficulties in how they relate to other people or in how they manage emotions, and this may lead to the use of binge eating as a maladaptive coping method.[6,7] The DBT model, which follows an affect regulation perspective, posits that some people who have difficulty regulating and managing impulses, conflict, and distress use food and binge eating as a method for coping.[2,8]

Among these "specialty" psychological treatments, CBT and IPT are well established with a strong evidence base; both interventions reliably produce both short- and long-term reductions in binge eating (> 50% remission rates) and associated psychopathology, but they do not produce weight loss.[2–4] For example, CBT has been shown to produce greater reductions in binge-eating than BWL through 12 months,[9] and the roughly 50% remission rates are generally durable through 48-month follow-ups.[10] Although DBT has a smaller evidence base than CBT and IPT have,[9] this intervention has been found to help patients achieve short-term reductions in binge eating and associated psychopathology.[2,4,8] Like CBT and IPT, DBT does not tend to produce significant weight loss.[8]

Cognitive-Behavioral Therapy

According to some practice guidelines,[11,12] CBT is the treatment of choice for BED. Cognitive-behavioral therapy, which can be effectively delivered in 1-hour sessions over 12 to 24 weeks, is composed of 3 treatment phases.[5] During phase 1, clinicians develop a collaborative relationship with patients, educate them about BED and the CBT model, help

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them to identify their problematic binge-eating and eating patterns relying heavily on self-monitoring methods, and help them to establish normal eating patterns.[5] Phase 2 teaches patients to identify and challenge negative thoughts regarding their weight, body image, interpersonal interactions, or stressful situations that may trigger binge-eating episodes via a process called cognitive restructuring.[5] In phase 3, clinicians focus patients on maintaining structured eating habits, consolidating their newly acquired problem-solving and cognitive techniques, and preparing for how to cope and respond to lapses in order to prevent relapse.[5]

Interpersonal Psychotherapy

The IPT model of treatment was originally developed for treating depression before being adapted for treating bulimia nervosa and subsequently BED.[7] Interpersonal psychotherapy has been shown to be effective for BED; studies generally report roughly 50%–60% remission (abstinence from binge eating) rates, which are well maintained through 24-month and 48-month follow-ups.[10,13]

Effectively delivered over 24 weeks, IPT generally consists of a 2-hour initial session and 18 hour-long sessions at weekly and then biweekly intervals.[7,13] Rather than focusing directly on binge-eating behaviors or employing CBT techniques, IPT focuses on helping patients identify and address problems in 4 primary domains: interpersonal deficits, role conflicts, role transitions, and grief or loss. Then, clinicians help patients to manage and more effectively express feelings, improve interpersonal skills and relationships, and enhance psychosocial functioning. In the latter phase, patients examine their progress and think about how to effectively prepare for and manage future conflicts.

Dialectical Behavioral Therapy

Developing skills in emotion regulation is the goal of DBT.[8] Because eating is thought to provide escape or relief from negative affect, treatment with DBT is composed of 4 areas of focus: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness.[8] Promising results have been found in preliminary research for binge-eating abstinence after DBT treatment.[3,8]

BEHAVIORAL WEIGHT LOSS TREATMENT

Behavioral weight loss therapy includes a structured behavioral lifestyle approach for patients to increase their physical activity while normalizing and structuring eating patterns.[2,3] Clinician protocols and materials, along with patient self-care materials, are widely available and some are in the public domain. For example, the National Institutes of Health Diabetes Prevention Program (DPP), a well-structured, carefully studied, and widely implemented form of BWL, has clinician and patient materials and "tool kits" available online.[14]

While BWL has been shown to be slightly less effective than CBT or IPT for helping patients with BED achieve durable or longer-term remission rates,[9,13] BWL is an effective treatment for reducing binge-eating and has the added advantage of producing modest weight loss.[9]

The DPP[14] focuses on small, gradual, and healthy dietary changes while increasing lifestyle and structured exercise activities. In one study that adapted the DPP protocol for BED, a greater number of patients achieved at least 5% weight loss with this BWL intervention than with either IPT or guided self-help CBT (CBTgsh).[13] However, by the 2-year follow-up, weight losses were no longer significantly different across the different treatments and IPT and CBTgsh had significantly better binge-eating outcomes.[13]

Clinical Points

- Use available evidence-based manualized psychological and behavioral protocols when treating patients with BED to provide effective treatment.
- Monitor patients closely to determine if a lack of rapid response indicates the need for more specialized care or whether they should be switched to an alternative evidence-based treatment in order to increase the chances of achieving good outcomes.

GUIDED SELF-HELP THERAPY

An important development in the psychological and behavioral treatment literature for BED is the focus on more scalable or disseminable treatments.[3] Many of these treatments are limited in that they require specialty training, and even specialists in the mental health field may not have this training or relevant experience in the delivery of these specific therapies. Therefore, efforts have been made to develop guided self-help protocols that would allow clinicians to provide support and guidance to patients who attempt to follow evidence-based treatment principles provided in the form of self-care materials.

Two examples of evidence-based self-care manuals developed specifically for patients include the self-help CBT developed by Fairburn[15] and the self-help BWL developed by Brownell.[16] These self-help books provide education about binge-eating and obesity, respectively, and include step-by-step instructions for patients to follow and implement the programs on their own.[9,17,18]

Research has generally supported the effectiveness of self-help CBT for BED and suggests an advantage for guided self-help over pure self-help methods.[17] Research has also demonstrated the "specificity" of guided self-help for BED. In a randomized controlled study[18] comparing the efficacy of CBTgsh and guided self-help BWL (BWLgsh), 90 participants with BED followed the treatment protocols. At the study's conclusion, 46% of patients receiving CBTgsh achieved remission, compared with 18% of patients who had received BWLgsh.[18]

COMBINATION TREATMENT

One-third to one-half of patients with BED do not appear to benefit completely or sufficiently from psychological and behavioral treatment,[3] so clinicians must find other ways

to help those patients. Perhaps the most logical approach is to combine pharmacotherapy with either psychological or behavioral treatment. To date, this clinical strategy has generally failed.[19,20] Adding pharmacotherapy to CBT failed to enhance binge-eating outcomes in 6 of 7 published studies testing a variety of medications.[21–27] The only study that found a statistical advantage for a combined approach was that of Claudino and colleagues,[21] who found that the addition of topiramate to CBT produced better outcomes than the addition of placebo to CBT.

Two studies produced important comparative findings showing the superiority of psychological treatments alone versus pharmacotherapy treatments alone. A randomized, double-blind, placebo-controlled study[23] found that CBT was superior to treatment with fluoxetine for BED. An open-label study[24] found that CBT was superior to 2 different selective serotonin reuptake inhibitors (SSRIs), and the addition of SSRIs to CBT did not enhance outcomes in either the short- or long-term for BED.

A different question is whether adding medications can enhance short-term weight loss achieved with either CBT or BWL. The findings for weight loss in BED have also been modest.[19,20] Claudino and colleagues[21] reported that topiramate was significantly superior to placebo for producing weight loss when added to CBT for BED. Studies that tested orlistat, a locally acting US Food and Drug Administration–approved medication for obesity, found statistically significant, but very weak, advantage for the addition of the medication over placebo.[19,20,26]

IMPORTANCE OF FOLLOWING PROTOCOLS

With psychological and behavioral treatments for BED, clinicians' adherence to the manualized protocols is important. Despite the availability of these manuals, many clinicians deliver treatment that drifts from the tested methods.[28] Clinicians may believe that they need to integrate elements of various protocols, based on their clinical judgment, perhaps because they perceive their patients to be more complicated than those in the clinical trials. However, research suggests little evidence exists in support of such "clinical lore" and supports the importance of training and implementing well-defined treatments that have an evidence base.[28]

A "difficult or challenging" patient is not a reason to mix-and-match a variety of techniques without a cogent conceptual model. This point is well illustrated in a recent study[29] in a "real-world" clinical setting with complex patients. In this study, clinicians in a community and mental health center were trained to provide BWL (the DPP) to patients with obesity with and without comorbid BED. This center, in an urban setting, treats Latino/Latina patients who speak only Spanish, are socially and economically disadvantaged, are poorly educated (half did not attain a high school education), and have high rates of current psychiatric comorbidities and high rates of lifetime substance use disorders. The bilingual clinicians at the center were trained in BWL and delivered the 16-week treatments in individual sessions. After treatment, 65% of patients with BED achieved remission, and 50% maintained remission at 6-month follow-up. The addition of orlistat to BWL did not provide significantly greater improvements than the addition of placebo in patients with BED. Thus, even with difficult patients with high rates of comorbidity, following an evidence-based manualized protocol in a collaborative fashion with patients can achieve excellent outcomes.

PREDICTORS OF OUTCOMES

Researchers have tested a range of patient variables as potential predictors or moderators of treatment outcomes. Nonspecific predictors could signal who might need additional attention, and moderators could provide guidance to clinicians about which specific treatments to offer (eg, matching). Unfortunately, finding reliable predictors and moderators of outcomes has been difficult.

A variety of patient characteristics (eg, age, sex, ethnicity/race, and eating disorder psychopathology) and eating behavior variables have been tested, but no reliable predictors or moderators of BED treatment outcomes have been identified.[30,31] Many patients with BED have psychiatric comorbidities,[32] but psychiatric comorbidity has generally not significantly predicted or moderated treatment outcomes tested to date.[30,31] One study[13] found that patients with BED who had a lifetime history of depression were less likely to achieve remission than patients without this history (38% vs 62%, respectively) and that patients with poor self-esteem and high eating disorder pathology tended to fare worse with BWL than the specialty treatments (IPT, CBTgsh).

Many patients also have obesity and medical comorbidities (strongly associated with obesity),[32] the presence of which requires consideration within a multidisciplinary perspective. Except for obesity, which has not emerged as a significant predictor or moderator of BED treatment outcomes,[30,31] medical comorbidities have not been tested for their prognostic significance in BED.[2,31]

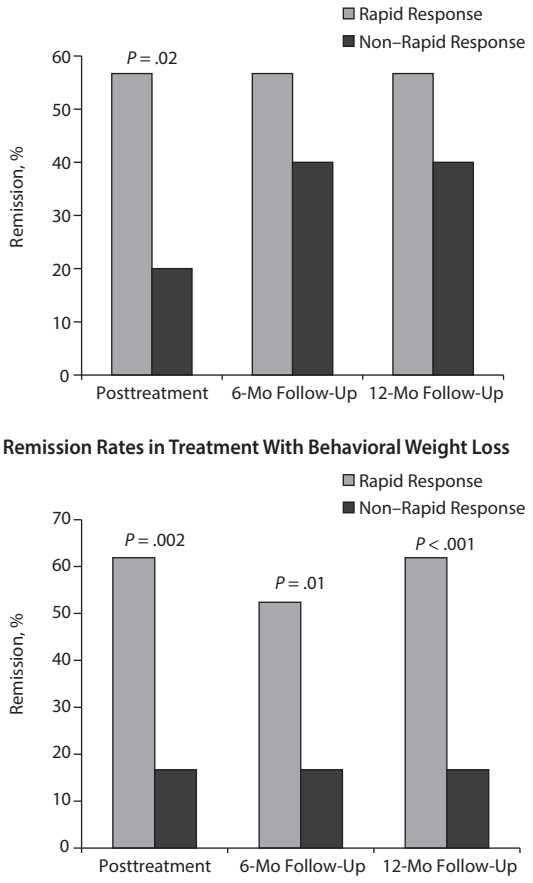
Overvaluation of Shape and Weight

Overvaluation of shape and weight, a defining feature of bulimia nervosa although not a required criterion for BED diagnosis,[1] occurs in roughly 50% of treatment-seeking patients with BED.[31] Overvaluation is not merely body dissatisfaction but refers to concerns about shape and weight that unduly or most strongly influence how a person regards or evaluates himself or herself as a person. The presence of overvaluation signals greater severity and has been shown to have important prognostic significance.[31,33] Patients with BED and overvaluation show less improvement overall across treatments over time than those without overvaluation[33] and benefit less from medication than from CBT.[31]

Rapid Response to Treatment

Rapid response to treatment appears to have important prognostic significance across treatments. A randomized

Figure 1. Rapid Response as a Predictor of Remission in Patients With Binge-Eating Disorder (BED)[a]



[a]Data from Grilo et al.[35]

controlled trial[34] compared responses among patients with BED being treated for 16 weeks with CBT plus fluoxetine, CBT plus placebo, fluoxetine monotherapy, or placebo. Rapid response was defined as a 65% or greater reduction in binge eating by week 4. (This definition was arrived at using receiver operating curves, a "signal detection" method.) Overall, 44% of the patients with BED had rapid response, which significantly predicted eventual remission at posttreatment. While better outcomes were found in those patients with rapid response to both CBT and medication, the predictive significance of rapid response was different. Specifically, among patients receiving CBT, rapid responders maintained their positive response and those without rapid response eventually showed improvements by the end of treatment. In sharp contrast, among patients receiving medication, those who did not have rapid response did not subsequently show any further improvement, suggesting that absence of rapid response to fluoxetine warrants consideration of switching to an alternative treatment.[34]

In a different study[35] comparing CBT and BWL treatments for BED, 57% of patients (67% of CBT and 47% of BWL) showed a rapid response (which was defined as a 70% or greater reduction in binge eating by week 4). Importantly, rapid response was unrelated to most patient demographic or clinical characteristics at baseline (ie, rapid responders are not merely "easy" patients or readily identifiable). Overall, rapid response predicted greater improvements across most outcomes but had different prognostic significance and distinct time courses for CBT and BWL (Figure 1).[35] Patients receiving CBT did similarly well in terms of remission rates and reduced levels of binge-eating and eating pathology (but no weight loss) through the 12-month follow-up regardless of rapid response. In contrast, patients receiving BWL with a rapid response achieved high rates of remission plus achieved significant weight loss, whereas those without a rapid response failed to improve further over time. Such findings suggest that when patients with BED are treated with BWL and do not show a rapid response, a switch to a different treatment might be indicated because they are unlikely to derive further benefit from continuing BWL.

Hilbert and colleagues[36] examined the significance of rapid response in patients with BED receiving 3 treatments (BWL, CBTgsh, and IPT). Patients with rapid response to CBTgsh had higher remission rates than CBTgsh patients without rapid response and BWL rapid responders. Patients treated with IPT, with and without rapid response, had greater remission rates than non–rapid responders in CBTgsh and BWL.[36]

CONCLUSION

Clinicians have multiple effective psychological and behavioral therapy strategies to utilize when treating patients with BED. Training in psychological and behavioral therapies and following the protocols faithfully will improve clinicians' ability to care for patients with BED. Patients with overvaluation of weight and shape appear to benefit more from CBT than from medication. Additionally, patients with rapid response are more likely to remit and, in the case of BWL treatment, also lose more weight. Rapid response also differentially predicts better longer-term outcomes across treatments.

Drug names: fluoxetine (Prozac and others), orlistat (Xenical), topiramate (Topamax and others).

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