Binge eating disorder: Cognitive-behavioral therapy (CBT)

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INTRODUCTION

Binge eating disorder is more prevalent in the United States than either anorexia nervosa or bulimia nervosa. In a large, nationally representative community survey, the estimated lifetime prevalence of binge eating disorder among women was 3.5 percent and among men 2.0 percent [1]. In addition, binge eating disorder is associated with numerous psychiatric and nonpsychiatric disorders [1,2]. Most patients report some degree of impairment in psychosocial functioning (home, work, personal life, or social life), and 19 percent report severe impairment. There are many treatment options for binge eating disorder, including psychotherapy, behavioral weight loss therapy, and pharmacotherapy.

This topic describes the use of cognitive-behavioral therapy (CBT) to treat binge eating disorder. Choosing treatment for binge eating disorder is discussed separately, as is the epidemiology and diagnosis. (See "Binge eating disorder in adults: Overview of treatment" and "Eating disorders: Overview of epidemiology, clinical features, and diagnosis", section on 'Binge eating disorder'.)

PSYCHOTHERAPY

CBT is one of several psychotherapies that are available to treat binge eating disorder [3-5]. (See "Binge eating disorder in adults: Overview of treatment", section on 'Psychotherapy'.)

Theoretical foundation of CBT — The standard CBT used for binge eating disorder is adapted from the type of CBT that was developed for bulimia nervosa [6]. The CBT model for binge eating disorder emphasizes the critical role of both cognitive and behavioral factors in maintaining binge eating behaviors, and focuses upon regulating food intake and reducing episodes of binge eating. The core psychopathology among patients with binge eating disorder is they over-evaluate (over-value) body shape and weight, meaning that self-worth is largely or exclusively dependent upon shape and weight, and one's ability to control them [7]. This produces dysfunctional eating and dieting behaviors, which lead to a psychological and physiological vulnerability to binge eating episodes. The recurring binge eating causes distress and low self-esteem, which lead to continued dietary restraint (attempts to limit eating) and binge eating [6].

INDICATIONS FOR CBT

Reviews and treatment guidelines concur that CBT is effective for binge eating disorder [3,4,8-10]. CBT is indicated for patients who are willing to engage in and perform the work required by CBT, or at least sufficiently motivated to begin the process as motivation can be addressed in the course of treatment. The use of CBT for binge eating disorder is consistent with multiple practice guidelines [9,11,12].

Goals for treatment with CBT may include reducing the patient's:

- Binge eating episodes
- Psychiatric comorbidity such as anxiety, depression, or substance use disorder
- Concerns with body image (ie, enhancing self-acceptance)

For patients with binge eating disorder and a high body mass index, weight loss is not a suitable goal in this population because CBT is ineffective for weight reduction, including interventions specifically targeting weight loss [13]. However, abstinence from binge eating with CBT is associated with modest weight loss [14] and may prevent the substantial weight gain that often occurs [15]. In addition, CBT plus nutritional counseling may improve metabolic outcomes (eg, waist circumference, blood pressure, and total cholesterol) [16].

It is not known whether there are different subtypes of the disorder that respond preferentially to CBT. There are no specific contraindications to CBT. However, as with all psychotherapies, the patient must have the necessary motivation and interest, cognitive capacity, emotional stability, and energy to participate in treatment and complete assigned tasks.

ADMINISTERING CBT

Format — CBT is usually administered by a clinician (therapist-led) to either an individual patient or a group [17]. A course of treatment typically consists of 20 sessions, each 50 minutes in length, occurring over four to five months. Alternatively, patients with binge eating disorder can receive CBT through a self-help program, which requires either limited or no involvement of a clinician (guided or pure self-help). (See 'Self-help forms of CBT' below.)

Therapeutic techniques and procedures — Several specific interventions are included in CBT for binge eating disorder [7]. Clinicians should direct and help the patient to:

- Understand that binge eating does not occur spontaneously. Rather, it may occur when the patient:
  - Breaks his or her dietary rule system, established prior to the onset of treatment, and reacts with dietary restraint (attempts to limit eating) and binge eating
  - Ingests alcohol or another disinhibiting substance
  - Under-eats, which creates psychological and physiological pressure to eat
  - Encounters an adverse event or becomes dysphoric
- Monitor eating behavior, which includes using a diary each day to record in real-time each meal, snack, binge episode, and the context for the eating situations (table 1). The patient should discuss the entries in the diary with the clinician at the next session and look for patterns and common antecedents to problems. As an example, binge eating episodes may occur every time the patient watches television, or after an argument with a significant other.
- Develop a regular pattern of eating (eg, three planned meals and two to three planned snacks per day) with no more than four hours elapsing between eating episodes. It may be necessary to gradually implement the regular pattern over a few weeks.
- Recognize high risk situations for binge eating and learn coping skills such as:
  - Alternative activities that are incompatible with eating
  - Learning to recognize that the urge to eat is temporary
  - Stimulus control (avoiding people, places, and activities that trigger binge eating)

- Problem-solving (identify the problem early, specify the problem accurately, generate multiple solutions, think through the consequences of each solution, choose one solution, and act upon it)

- Modify dieting behavior (ie, avoid prolonged periods of time without eating).

- Address food avoidance:

  - Identify those foods that the patient regards as forbidden because of the belief that they will inevitably lead to binge eating

  - Help the patient disconfirm this belief by introducing a small amount of the food into a planned meal or snack on a day when the patient feels in control of their eating and capable of resisting the urge to binge eat

- Address and restructure dysfunctional thoughts (cognitive distortions) about body shape and weight (eg, by discussing their importance relative to other areas of life, including family, work, friends, and recreational activities). The clinician should focus upon the patient's over-evaluation of shape and weight, and encourage the patient to actively engage in other areas of life. At the same time, clinicians should validate the patient's legitimate concerns that obesity may interfere with other aspects of life.

- Weigh themselves once per week, to address unusual weighing practices (either excessive weight checking or avoidance of weighing). The clinician should educate the patient about weight, weight changes, and body mass index and its importance to health.

- Prevent relapse after finishing acute treatment:

  - Review the patient's progress and identify continuing problems

  - Educate the patient how relapse generally begins with a single event that escalates (eg, the patient may respond to a critical comment by resuming dietary restraint [attempts to limit eating]), which may then lead to an episode of binge eating, followed by further attempts to limit eating and additional episodes of binge eating

  - Develop a plan that the patient will follow if problems occur, including the possibility of resuming treatment

Nonadherence with treatment, including missed appointments or failing to complete homework assignments, are addressed directly by the clinician and attempts are made to engage the patient with treatment and the need for change [18].

An enhanced form of CBT for all eating disorders, including binge eating disorder, has been developed [18]. This treatment includes additional methods for addressing dysfunctional concerns about body weight and shape, as well as modules that address problems that maintain or reinforce binge eating (eg, low self-esteem, perfectionism, and interpersonal functioning).

Self-help forms of CBT — Patients with binge eating disorder can receive CBT through a self-help program using either hardcopy workbooks, online, web-based content, or smartphone applications; these programs provide either limited involvement of a clinician (guided self-help) or no involvement (pure self-help). Self-help versions of CBT can also be successfully sequenced with other forms of treatment, such as standard behavioral weight loss [19]. Practice guidelines indicate that self-help programs are a reasonable alternative to therapist-led CBT as first line treatment [4,9]. The prognosis for patients using these lower intensity programs appears to be good among patients who respond rapidly (eg, ≥65 percent reduction of binge eating within the first four weeks of treatment) [20]. However, self-help programs may be less effective for treating racially diverse patients with binge eating disorder in primary care settings [21].

Several factors limit the number of clinicians available to provide CBT [22]. Clinicians who are well-trained and experienced in CBT are in short supply. In addition, the treatment is time consuming, and patients with limited financial resources usually cannot access CBT. Self-help programs were thus developed to make CBT techniques more available to patients with binge eating disorder.

The workbook (either hard copy or CD-ROM) used in a self-help program [22,23]:

- Educates the patient about binge eating disorder
- Outlines the cognitive-behavioral model of binge eating disorder
- Provides a step-by-step program

For guided self-help based upon CBT, several workbooks are available commercially [24-26]. We suggest the workbook entitled, “Overcoming Binge Eating” because it has been the most studied and longest used [9,23]. As in therapist-led CBT, the program focuses upon developing a regular pattern of moderate eating by monitoring oneself while eating, learning techniques for self-control, and learning how to solve problems more effectively. In addition, maintenance of behavioral change is emphasized to prevent relapse of binge eating.

Clinicians who have some familiarity with eating disorders can guide self-help treatment [22,23]. The clinician meets with the patient approximately 10 times, with each session lasting about 25 minutes. The clinician provides a rationale for using the workbook, encouragement,

motivation, feedback about the patient's progress, and assistance in applying the concepts described in the book.

In addition, randomized trials have established preliminary evidence of efficacy for digital self-help interventions in binge eating disorder:

- Internet-based guided self-help – A four-month randomized trial compared internet-based guided self-help with standard CBT in patients with full or subthreshold binge eating disorder (n = 169) [27]. The guided self-help intervention included 11 internet modules that followed CBT principles and weekly e-mail contact with a therapist who offered support. Standard CBT included 20 face-to-face sessions with a therapist, each lasting 50 minutes. In both groups, the number of days with binge eating episodes decreased and the benefit persisted for six months posttreatment. Nevertheless, at the end of treatment and at the six-month follow-up, standard CBT was superior to internet-based guided self-help for days of binge eating as well as abstinence from binge eating.

- Smartphone application – Randomized trials have shown that different smartphone applications can help patients with binge eating disorder:

  - Two randomized trials, by the same research group studying the same application, found that it was helpful for augmenting guided self-help CBT. Both study samples consisted of patients with binge eating disorder or bulimia nervosa (primarily binge eating disorder). The smartphone application, Noom Monitor, is used for self-monitoring to record weight and relevant activities such as exercise, meals/snacks, and compensatory behavior:

    - A 12-week trial in 66 patients compared guided self-help alone with guided self-help plus the smartphone application; the setting was an academic eating disorders clinic [28]. Guided self-help included using a self-help manual based upon CBT, and eight face-to-face sessions with a therapist, generally lasting approximately 20 minutes. Reduction of binge eating episodes was greater in patients who received the smartphone application than patients who did not, but this benefit was not observed six months posttreatment.

    - Another 12-week trial, conducted in a nonacademic health care system, randomly assigned patients (n = 225) to guided self-help CBT plus the smartphone application or to standard care [29]. Active treatment included a self-help manual based upon CBT and eight telemedicine sessions with a health coach that lasted 20 to 25 minutes. None of the standard care patients received eating disorder treatment. Online assessments 52 weeks after randomization showed that

remission occurred in more patients who received guided self-help CBT plus the smartphone application, compared with standard care (57 versus 30 percent).

- An eight-week randomized trial compared a different smartphone application with a wait list in 392 patients with at least one binge eating episode in the past four weeks, including some who met diagnostic criteria for bulimia nervosa (42 percent) or binge eating disorder (31 percent) [30]. The application utilized the principles and techniques of CBT, was self-guided (pure self-help), and emphasized self-observation. Reductions in global eating disorder psychopathology were greater with the smartphone application than the wait list.

Nonresponders — Treatment should be reconsidered for patients who:

- Do not engage in treatment despite repeated efforts upon the part of the clinician
- Make little or no progress after 10 sessions

In either situation, the patient's overall motivation should be assessed and alternative treatments considered.

Ending treatment — Treatment should end after the planned number of sessions, provided the patient has made progress [7]. It is acceptable to end treatment if the patient still has some unhealthy eating habits, occasional binge eating episodes, and some excessive concerns about body shape and weight. However, clinicians should consider continuing treatment beyond the initially prescribed number of treatments or switching to an alternative form of treatment if the patient's binge eating interferes significantly with functioning and the patient is unlikely to manage these episodes independently.

No studies have examined whether continuation or maintenance treatment with CBT is beneficial in preventing relapse or recurrence of binge eating in patients who have recovered from binge eating disorder. In practice, clinicians sometimes schedule one or more follow-up visits at intervals of a month or more to monitor post-treatment course and resume treatments in the event of relapse.

EFFICACY OF CBT

The efficacy of CBT for binge eating disorder is discussed separately. (See "Binge eating disorder in adults: Overview of treatment", section on 'Cognitive-behavioral therapy'.)

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Eating disorders".)

SUMMARY

- Cognitive-behavioral therapy (CBT) is indicated for patients with binge eating disorder whose goals for treatment include reducing the frequency of binge eating episodes, and addressing concerns with body image and psychiatric comorbidity. CBT is not indicated for weight loss. (See 'Indications for CBT' above.)

- CBT is usually provided by a clinician to either an individual patient or a group. A course of treatment typically consists of 20 sessions, each one 50 minutes, occurring over four to five months. Alternatively, patients with binge eating disorder can receive CBT through a self-help program that uses a workbook, which requires either limited or no involvement of a clinician (guided or pure self-help). (See 'Format' above.)

- Several specific interventions are included in CBT for binge eating disorder: understand that binge eating does not occur spontaneously, monitor eating behavior, develop a regular pattern of eating, recognize high risk situations for binge eating and learn coping skills, modify dieting behavior, address food avoidance, address dysfunctional concerns (cognitive distortions) about body shape and weight, and relapse prevention. (See 'Therapeutic techniques and procedures' above.)

- Self-help CBT workbooks educate patients about binge eating disorder, outline the cognitive-behavioral model of binge eating disorder, and provide a step-by-step program. Digital self-help interventions may also be beneficial. (See 'Self-help forms of CBT' above.)

- Treatment should end in most cases after the planned number of sessions. It is acceptable to end treatment if the patient still has some unhealthy eating habits, occasional binge eating episodes, and some excessive concerns about body shape and weight. However, clinicians should consider continuing treatment beyond the initially prescribed number of treatments or switching to a different form of treatment if the patient's binge eating interferes significantly with functioning. (See 'Ending treatment' above.)

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