

The Changing “Weightscape” of Bulimia Nervosa

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Recurrent binge eating, characterized by eating an unusually large amount of food coupled with a sense of feeling out of control, is the hallmark of two DSM-IV eating disorders—bulimia nervosa and binge eating disorder. In bulimia nervosa, but not binge eating disorder, binge eating is coupled with compensatory behaviors (e.g. self-induced vomiting, laxative or diuretic use, excessive exercise, and fasting). Historically, whereas anorexia nervosa is associated with underweight (1) and binge eating disorder is commonly, although not universally, associated with overweight and obesity (2), the prototypical patient with bulimia nervosa presents in the normal weight range (3).

During the course of an ongoing clinical trial comparing group cognitive-behavioral therapy (CBT) with online CBT for bulimia nervosa, we noticed a deviation from the typical weight presentation, with more individuals presenting for treatment in the overweight or obese weight ranges. Our observation concurs with a report from Spain indicating that the prevalence of obesity has increased threefold in patients with eating disorders characterized by binge eating (4). Moreover, not only were these patients seeking relief from their binge eating and purging, they also expected treatment to result in demonstrable weight loss.

CBT is the “gold standard” for treatment of bulimia nervosa (5–7). Although fluoxetine is approved by the U.S. Food and Drug Administration for bulimia nervosa at a recommended dosage of 60 mg/day (8), its efficacy in reducing binge and purge episodes in the short term does not convincingly lead to long-term cure. CBT for bulimia nervosa is a multimodal intervention that includes techniques such as psychoeducation, self-monitoring, modifying responses to cues, challenging automatic thoughts, thought restructuring, problem solving, exposure with response prevention, and relapse prevention (9–11). In addition to achieving abstinence from binge eating and purging, CBT addresses topics such as body acceptance, eliminating dietary restriction, normalization

of eating, uncoupling of emotion regulation from eating, and acceptance of a wider range of foods by moving away from characterizations of foods as “bad” or “good.” Approximately 40%–60% of patients who complete CBT for bulimia nervosa demonstrate significant improvement (11–17).

As Butryn et al. (3) have noted, “Because the body weights of patients with bulimia are generally in the normal range, there is typically no attempt made to modify body weight during treatment.” CBT does address weight when patients continue to strive for weight loss even when in the normal weight range. The discussion then focuses on developing healthy weight expectations and eliminating dietary restriction. Although CBT has been adapted for overweight individuals with binge eating disorder to promote healthy approaches to weight regulation, these adaptations have not been routinely applied in the treatment of bulimia nervosa.

In the context of the escalating obesity epidemic (18), however, the body mass index (BMI) weightscape of bulimia nervosa may be changing, with concurrent overweight or obesity complicating the clinical picture and influencing treatment expectations. If our observations of increasing weight reflect a trend for bulimia nervosa patients or a subset of them, modifications of our standard approach to weight issues in bulimia nervosa may be required.

BMI in Bulimia Nervosa

The BMIs of individuals with bulimia nervosa are generally in the normal or high normal range (2), with lower BMIs associated with a history of anorexia nervosa (19). In an evidence-based review of clinical trials of bulimia nervosa conducted by the Agency for Healthcare Research and Quality (20), baseline BMIs (when reported) were most commonly in the normal range, with only a few exceptions, although some studies had BMI-based exclusion criteria (see the data supplement that accompanies the online edition of this article).

BMI at presentation only tells a partial story, as the clinical trajectory of bulimia nervosa often includes significant weight variability (21). Presentation BMIs are often lower than self-reported highest adult BMI, indicating a state of weight suppression (3, 22), defined as the discrepancy between an individual’s highest adult weight and his or her current weight (23). One study (3) suggested that greater weight suppression was associated with poorer outcome of bulimia nervosa treatment, whereas another reported no association (24).

This article is featured in this month’s **AJP Audio**, is an article that provides **Clinical Guidance** (p. 1036), and is the subject of a **CME** course (p. 1123)

A 35-year-old woman with obesity presents with binge eating.

"Ms. Z," a 35-year-old African American single woman with a body mass index (BMI) of 38.4 (height 5 feet, 6 inches, weight 238 lb), presents for an evaluation for bulimia nervosa. She was referred to the eating disorders program by her primary care physician, who knew about her eating disorder but was primarily concerned about her weight and blood pressure. Ms. Z has an advanced degree and is employed full time. She has struggled with her eating, weight, and body image since childhood and began binge eating regularly (one to two times per week) at age 15. Fasting and self-induced vomiting began in her early twenties, when she achieved her lowest adult BMI of 21.0 (weight 130 lb at age 23). She has gained 100 pounds in the past 7 years and currently binges and purges one to two times a day. A typical binge consists of a box of cookies, a pint of ice cream, 7 ounces of cheese, two bowls of cereal with 2 cups of milk, and four pickles. Ms. Z has seen five therapists to address her eating behaviors and weight concerns and has participated in numerous commercial weight loss programs. She states that binge eating has always served a self-soothing purpose for her. She has a demanding university-related job that absorbs most of her time. She has few friends and has not been in a romantic relationship for the past 5 years, believing that no one would be interested in a woman of her size. She remarks that food is more reliable than any man because "it's always there when you need it and you don't have to take care of it or stoke its ego." She spends evenings at home working until she is completely exhausted, then heads to the kitchen for an all-out binge, after which she vomits everything up and then cries herself to sleep. She has never smoked and does not drink alcohol. Current medications prescribed by her primary care physician include fluoxetine (20 mg/day), amlodipine (5 mg/day), and clonazepam (as needed).

What are Ms. Z's treatment goals? What are her primary care physician's? Is her medication for bulimia nervosa adequate? How well would cognitive-behavioral therapy (CBT) for bulimia nervosa address her personal treatment goals? Her physician's? What challenges might a therapist face having Ms. Z in group therapy for bulimia nervosa?

Ms. Z sought consultation with a psychiatrist who discussed treatment options. The psychiatrist offered the option of increasing the fluoxetine dosage to the recommended level (60 mg/day) or joining a CBT group. She explained that although fluoxetine does lead to short-term reduction in binge eating, the evidence for CBT was stronger in terms of long-term outcome. She also made it clear that they could adjust the medication dosage later if necessary, but recommended commencing one intervention at a time, rather than starting therapy and increasing medication dosage simultaneously. Ms. Z opted for group therapy. The majority of the CBT sessions were led by a clinical psychologist, and four sessions were led by a registered dietitian. The group was anchored in the

principles of CBT and enriched with elements of dialectical behavior therapy. The group began with psychoeducation; reviewed the language of CBT, focusing on behaviors, thoughts, and feelings; emphasized successful self-monitoring and normalization of meals; and transitioned through challenging automatic thoughts, thought restructuring, chaining, and relapse prevention.

The group started with five participants, four of whom were overweight or obese. During the first session, weight was a central topic. Patients discussed all of the diet programs they had tried, and they discussed wanting to get their blood pressure or "sugar" levels under control. When the therapist included the general caveat that CBT for bulimia nervosa does not necessarily lead to weight change, the four overweight participants immediately spoke up, remarking that they expected to achieve weight loss from treatment in addition to getting over their bulimia nervosa. After this first session, the fifth participant, who had a history of anorexia nervosa and was on the low end of normal weight range, opted not to continue with group, stating that she felt out of place with the four other women, who were facing different recovery challenges. The other group members felt for her but agreed that the issues that they faced were different.

Rather than follow the standard CBT curriculum, the therapist decided to work with this group of patients to adapt CBT to address their bulimia nervosa and their weight concerns. For example, Ms. Z initially wanted to lose 50 pounds and stop binge eating and purging. The therapist worked with her to develop more realistic goals and indicated that the first and most important step toward recovery was normalization of eating. The therapist explained to the group that the treatment would borrow from CBT for binge eating disorder and include elements of appetite awareness, portion control, mindful eating, development of strategies other than eating for emotion regulation, and regular physical activity and exercise. She also focused their attention more on other health parameters (e.g. blood pressure and glucose and triglyceride levels) rather than the number on the scale. The patients decided as a group that they wanted to incorporate more physical activity and exercise goals into their treatment plan. The psychologist identified an exercise physiology practicum student who worked with the therapist to incorporate appropriate physical activity and exercise into the overall treatment plan.

Ms. Z was an active group participant, self-monitored regularly, and fought against her tendency to want to fix everything at once. Her expectations were for immediate and linear recovery and rapid and sustained weight loss to get her health under control. In the past when she had high treatment expectations and then failed to meet them, her disappointment resulted in a full-blown relapse of bulimia nervosa symptoms and a sense that she was a failure. When she had entered exercise programs in the past, she

had overdone it, gotten injured, and then dropped out. Modulating her expectations and developing realistic goals and timelines became her primary issue in the group.

The dietitian taught the group how to work with the exchange system and how to self-monitor. She emphasized moderation rather than restriction, and she reinforced the CBT sessions using mindful eating techniques, portion control, and appetite awareness training.

The exercise physiology intern developed a home-based aerobic and resistance training intervention plan. Group members were instructed to engage in the exercise intervention five times a week, starting with 30 minutes of moderate exercise per day for the first 4 weeks and gradually increasing. The intern was careful to ensure that exercise did not become obsessive and made it clear that exercise was for health, not specifically for weight loss. He encouraged patients to look beyond the scale for success and to pay more attention to the blood test results, the sphygmomanometer readings, and their self-reports of mood and well-being than to the scale.

By week 16, Ms. Z was abstinent from binge eating and purging. She joined a yoga class for “large women,” where she found comfort in not having to compare herself with the other “teeny yoga bunnies.” She lost 10 pounds during CBT without dieting, which she admits fell far short of her original expectations, but her blood pressure had normalized to the point where her primary care physician tapered her amlodipine. Her intention was to enjoy a “planned plateau” and to consolidate her abstinence and new weight and blood pressure before engaging in the next step of her health reform plan (which included getting more fit).

She developed healthier approaches to stress tolerance and better solutions to boredom than binge eating and purging. She could identify warning signs of an impending binge and knew that her tendency to skip breakfast and boost her energy with caffeine set her up for evening binges. Her binge “hangover” the next morning would then facilitate skipping breakfast and lunch, thereby perpetuating the cycle. Rather than succumbing to work stress, she began to predict times of high stress and planned in advance to ensure that she would continue eating healthful breakfasts and lunches to avoid those strong evening urges. She also benefited from the technique of opposite action. On evenings when all she wanted to do was binge and purge, she learned how to avoid putting on her “binge sweats” and instead changing into casual clothes and getting out of the house—to a book reading, a movie, or some other non-food-related activity. All in all, she was pleased with the outcome of abstinence from binge eating and purging but needed considerable work to adjust her weight loss expectations.

A year after treatment, she remained abstinent from binge eating and purging and continued to reap the medical benefits of her healthier lifestyle. Her fluoxetine had been discontinued, which was sensible given her abstinence from bulimic behavior and prolonged underdosing. She worked hard to maintain a focus on health rather than on weight but occasionally still felt the pull toward a drive for thinness. Small upward weight fluctuations still triggered urges to purge, but she recognized that this was a trap for her and that she would continue to have to apply active strategies to combat this urge.

Weight and CBT for Bulimia Nervosa

When patients are in the normal weight range, the topic of weight in CBT for bulimia nervosa is generally approached from the perspective of cognitive distortions and dissatisfaction with a body that is objectively within the “healthy” weight range. CBT for bulimia nervosa generally results in weight change (either gains or losses) within a 1–3 kg range over the course of treatment. Although not considered to be clinically significant by researchers (25, 26), weight gain in this range may be of considerable personal significance to patients. The nature and magnitude of this significance may differ depending on whether the patient is in the healthy weight range or in the overweight or obese range and entering treatment with weight loss expectations.

Carter et al. (27) reported significant variability in the effect of treatment for bulimia nervosa on weight—with reports of gain, loss, and no change. In a 5-year follow-up study, they observed considerable interindividual differences in posttreatment weight trajectories, with the majority of patients remaining fairly stable but 30% having lost and 18% having gained 5 kg or more. At 5 years, 24% of patients fell into the overweight range (BMI=25–29.9),

although mean BMI had been in the healthy range at baseline (BMI=22.7, SD=2.7).

Actual or feared weight gain during treatment is a deterrent to engagement and acceptance of many interventions, both pharmacologic and psychological (28, 29). As patients recover from bulimia nervosa, they may experience periods of weight gain after cessation of purging when binge eating persists. We encourage patients to be mindful that their metabolism may take time to stabilize after cessation of binge eating and purging and urge them not to launch into extreme weight control behaviors in response to small weight fluctuations.

The urgency, personal impact, and health consequences of weight fluctuations that occur during the course of treatment may be magnified in patients who are overweight or obese. If the clinical presentation of individuals with bulimia nervosa is changing, we may need to revisit our approach to weight, and possibly use our work with binge eating disorder as a guide.

Our Observations

While supervising group therapy and reviewing chat transcripts, we noted a marked difference in the nature of

the therapeutic conversation about weight. In contrast to our expectations, therapy topics were not about striving for a societal ideal in normal weight patients; rather, patients were discussing directives from their primary care physicians to lose weight or their personal health concerns about type 2 diabetes, hypercholesterolemia, hypertension, and other medical complications secondary to overweight and obesity. Given that half of the patients were in online therapy, we did not always have visual cues to evaluate their weight status. Were we seeing a shift in the BMI presentations of bulimia nervosa patients? To address this question empirically, we explored the baseline demographic data and verified that the mean BMI of the sample at our site was in the overweight range (BMI=25.2, SD=5.6), with 30% of the sample at presentation in the overweight or obese range—a definite deviation from expectations.

The overweight or obese patients were clearly entering treatment with two explicit treatment goals—abstinence from bulimic behaviors and weight loss. Our intervention, however, was not designed for weight loss. Despite our carefully considered clarification at the outset of therapy that the first focus of treatment for bulimia nervosa is normalization of eating, these participants' stated or unstated hope was that our treatment would help them lose weight. In fact, in binge eating disorder, where BMI is often higher, CBT is effective in producing abstinence from binge eating but fairly ineffective in producing weight loss (30, 31).

Matching Patient Expectations With Therapy Deliverables

Our concern was that our treatment was directed toward outcomes that were not congruent with expectations of our overweight or obese patients. Dropout and premature termination is an issue in both clinical trials and community treatment of patients with eating disorders (32), and weight loss expectations play a role (29). Dropout rates from CBT for bulimia nervosa range from 6% to 37% (20). Similarly, self-help trials report dropout rates ranging from 21% to 31% (20).

A mismatch between the therapist's and the patient's treatment goals can also contribute to dropout (29). If patients are entering treatment with the expectation of abstinence from bulimic behaviors *and* weight loss and our treatment only addresses one expected outcome, we run the risk of creating a goal mismatch and ultimately treatment discontinuation and failure if this discrepancy is not addressed explicitly. Furthermore, even if patients do not discontinue treatment, in the absence of therapeutic attention to weight-related issues, they may pursue weight loss outside of therapy. Engaging in unhealthy weight loss through extreme food restriction or food elimination could jeopardize their ability to cease binge eating and purging behaviors despite their active participation in CBT.

Our interventions for bulimia nervosa should consider all relevant health goals and, above all else, do no harm. If

patients have weight-related medical morbidities and they gain weight during the course of CBT for bulimia nervosa, then we may be inadvertently exacerbating other health problems. It is unknown to what extent reductions in binge eating and purging influence various metabolic parameters in the absence of weight loss. This is an important research question. We must also ask whether our approach to treatment of individuals with bulimia nervosa who are overweight or obese needs to be modified to address the potential complications of obesity. The nature of the conversation about weight in CBT for bulimia nervosa may have to vary depending on the medical status of the individual by carefully considering health parameters related to current BMI.

Marcus and Levine (33) emphasize to patients at the beginning of binge eating disorder treatment that typical CBT is not associated with weight loss. In fact, CBT for binge eating disorder helps the patient accept a larger body size by promoting recognition that a larger body can be both attractive and healthy (an ongoing emphasis on physical activity is also helpful in promoting body acceptance). Working toward acceptance of a larger body size is important in helping the patient avoid extreme dieting and unhealthy weight control practices that perpetuate disordered eating, but it does not give license for the patient or provider to ignore health risks associated with obesity. It is likely that we will come under increasing pressure from patients and their primary care providers to develop or adapt CBT for bulimia nervosa that achieves not only abstinence from disordered eating but also incorporates effective lifestyle modifications that support healthy weight regulation.

Approaches to weight control have been developed and tested in the treatment of binge eating disorder, such as appetite awareness training (34), behavioral weight loss (with appropriate adaptations for individuals with bulimia nervosa) (33, 35), and appetite-focused CBT (36). Strategies such as these, which bring appetite and eating into the foreground and directly address weight regulation, may have to be incorporated into "typical" CBT for individuals with bulimia nervosa who have weight-related medical morbidities. Failure to do so may lead to greater dropout, poorer outcome, poorer adherence, and greater patient dissatisfaction with treatment.

Summary and Recommendations

In the absence of guidelines about how best to treat individuals with bulimia nervosa with associated weight-related morbidities, our clinical recommendation is to begin with a comprehensive evaluation of patients' weight history, including highest and lowest past adult BMI; childhood and adolescent weight and weight concerns; frequency, degree, and duration of weight fluctuations; and deviation of current weight from both highest and lowest adult BMI. Family weight and medical history are also relevant in determining both the likelihood of gaining

or losing weight with treatment and obesity-related health risks. It is critical to establish clear communication with the patient's primary care provider to develop a comprehensive clinical picture that includes any weight-related morbidities and to ensure that recommendations made by the primary care provider related to weight regulation are consonant with the goals of treatment for bulimia nervosa (e.g. not recommending dieting for weight loss).

Leveraging our knowledge about binge eating disorder, the clinician and patient should work together to establish and sequence treatment goals. Sound clinical practice would be to use known CBT tools to reduce binge eating and purging while also introducing approaches that address healthy lifestyle changes and appetite awareness. Incorporating and encouraging moderate (nonobsessive) exercise (for health rather than for weight loss), regular physical activity, and a moderation focus and providing assistance with strategies to help manage appetite and satiety and reduce eating as a means of emotion regulation are the best common-sense tools we have available at this time.

Weight should remain part of the conversation lest dissatisfaction with personal weight goals or distress over weight gain during treatment lead to premature treatment termination or a return to unhealthy compensatory behaviors or extreme weight loss strategies. Also worthy of consideration is consultation with dietitians and certified trainers who are knowledgeable about eating disorders and are able to work within the parameters of CBT. Although not always feasible, collaboration with these practitioners may decrease treatment duration and ultimately lead to a more cost-effective course of treatment.

One additional effect of this shift in patient BMI is potential heterogeneity in therapy group membership. A CBT group for bulimia nervosa that includes both individuals who are overweight and seeking weight loss and individuals who are borderline underweight with a history of anorexia nervosa can lead to unexpected discomfort and therapeutic challenges. Discussions about weight regulation and desires for weight loss outcomes can be a trigger for patients with a history of anorexia nervosa and can fuel urges to restrict. Moreover, for overweight patients, participation in a group with low-weight members could lead to negative body comparisons and self-evaluation that prompt early treatment discontinuation.

Our patients and their evolving clinical presentations drive and motivate the evidence base. Bulimia nervosa in individuals who are overweight or obese may represent the natural evolution of the eating disorder in the context of the obesity epidemic. Indeed, we have seen an increase in the number of former patients with both anorexia and bulimia nervosa, years after recovery from their eating disorder, asking how they can regulate their weight without retriggering their eating disorder. These clinical observations converge to alert clinicians and researchers to a possible weight trend in individuals with bulimia nervosa and challenge us to adapt our

interventions appropriately to deal with an evolving clinical presentation.

Received Jan. 31, 2012; revision received March 15, 2012; accepted April 2, 2012 (doi: 10.1176/appi.ajp.2012.12010147). From the Department of Psychiatry, University of North Carolina at Chapel Hill; and Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center, Pittsburgh. Address correspondence to Dr. Bulik (cbulik@med.unc.edu).

Dr. Bulik has received research support from NIMH, the National Institute of Diabetes and Digestive and Kidney Diseases, the American Foundation for Suicide Prevention, the Wellcome Trust, and the Foundation of Hope. Dr. Marcus has served on the scientific advisory board of United Health Care. The other authors report no financial relationships with commercial interests.

Supported by NIH grant R01MH080065. Dr. Zerwas was supported by NIH grant 5K12HD001441.

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Clinical Guidance: Upward Weight Trend in Bulimia Nervosa

Standard treatments for bulimia nervosa are for patients with normal weight, but Bulik et al. report that a growing proportion of patients are substantially overweight or obese. Weight-related medical problems require coordination with primary care and expanded treatment goals. Cognitive-behavioral therapy (CBT), the gold standard for bulimia nervosa, is fairly ineffective in reducing weight. Compatible strategies tested for binge-eating disorder include appetite awareness training, behavioral weight loss, and appetite-focused CBT. A combined approach may be essential to treatment adherence, as patients are seeking weight loss. Nonetheless, goals of therapy include setting realistic expectations and shifting the focus from weight to health. Therapy groups specifically for overweight bulimia nervosa patients help avoid negative body comparisons.