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Exploring pretreatment weight trajectories in obese patients with binge eating disorder

Rachel D. Barnes[a,*], Kerstin K. Blomquist[a], Carlos M. Grilo[a,b]

[a]Department of Psychiatry, Yale University School of Medicine, P.O. Box 208098, New Haven, CT 06520-8098, USA
[b]Department of Psychology, Yale University, P.O. Box 208098, New Haven, CT 06520-8098, USA

Abstract

Treatments for obese patients with binge eating disorder (BED) typically report modest weight losses despite substantial reductions in binge eating. Although the limited weight losses represent a limitation of existing treatments, an improved understanding of weight trajectories before treatment may provide a valuable context for interpreting such findings. The current study examined the weight trajectories of obese patients in the year before enrollment in primary care treatment for BED. Participants were a consecutive series of 68 obese patients with BED recruited from primary care centers. Doctoral-level clinicians administered structured clinical interviews to assess participants' weight history and eating behaviors. Participants also completed a self-report measure assessing eating and weight. Overall, participants reported a mean weight gain of 9.5 lb in the past year, although this overall average comprised remarkable heterogeneity in patterns of weight changes, which ranged from losing 40 lb to gaining 62 lb. Most participants (65%) gained weight, averaging 22.5 lb. Weight gain was associated with more frequent binge eating episodes and overeating at various times. Most obese patients with BED who present to treatment in a primary care setting reported having gained substantial amounts of weight during the previous year. Such weight trajectory findings suggest that the modest amounts of weight losses typically reported by treatment studies for this specific patient group may be more positive than previously thought. Specifically, although the weight losses typically produced by treatments aimed at reducing binge eating seem modest, they could be reinterpreted as potentially positive outcomes given that the treatments might be interrupting the course of recent and large weight gains.

Binge eating disorder (BED) is characterized by recurrent binge eating in the absence of extreme weight control methods (eg, purging) that characterize bulimia nervosa. Binge eating is defined as eating unusually large amounts of food in discrete periods of time while experiencing a subjective sense of loss of control. Binge eating disorder has a prevalence of roughly 2.8% to 4.0% in adults and is strongly associated with obesity [1] and subsequently with increased morbidity and mortality associated with excess weight [2]. The prevalence of BED is substantially higher in clinical settings. For example, the prevalence of BED in patients in primary care and general medicine settings has been estimated to be 8.5% and is associated with significantly heightened rates of medical problems compared with patients without BED [3].

Research has identified a number of psychological [4] and pharmacological [5] interventions that are effective in reducing binge eating as well as associated eating disorder features and psychologic distress. Unfortunately, most treatment studies have failed to produce significant weight losses. The best established psychologic approaches, such as cognitive-behavioral therapy, generally result in substantial reductions in binge eating and binge abstinence in roughly 50% of patients [6], but—like findings for established behavioral weight loss treatments [7]—do not result in meaningful weight loss for most BED patients [4]. Similarly, a meta-analysis concluded that certain medications have a statistically significant advantage over placebo for producing short-term binge abstinence and weight loss; however, the weight losses are still quite modest [5]. Even findings from controlled trials of medications with the greatest impact on weight loss in this specific subgroup of obese patients have

* Corresponding author. Yale University School of Medicine, Program for Obesity, Weight, and Eating Research, P.O. Box 208098, New Haven, CT 06520-8098, USA. Tel.: +1 203 785 6395; fax: +1 203 785 7855.
E-mail address: rachel.barnes@yale.edu (R.D. Barnes).

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been disappointing. For example, sibutramine resulted in a mean weight loss of 9.5 lb [8], and topiramate resulted in a mean weight loss of 13 lb [9]. The significance of such modest weight loss is of uncertain clinical significance among obese patients. The failure of available treatments to produce clinically meaningful weight losses in this specific subgroup of obese patients characterized by binge eating remains puzzling.

An obvious question is how can treatments substantially reduce binge eating without achieving meaningful weight loss? One consistent finding within randomized controlled trials has been that patients who cease binge eating entirely lose significantly more weight than patients who do not stop binge eating [6-8]. Thus, there does seem to be some association between change in binge eating and change in weight. Indeed, it has been speculated that treating binge eating may be one important avenue for stopping further weight gain [10]. It is established that adults tend to gain, on average, 1 to 2 lb per year [11], and recent accelerated increases in the prevalence of obesity may reflect even greater average weight gains per year [12-15]. The one available longitudinal study of the natural course of weight gain by persons with BED, which was performed with women (ages 16-35 years), reported that the prevalence of obesity increased from 22% to 39% during a 5-year period [16]. It is noteworthy that the community sample in the Fairburn and colleagues study [16] was substantially younger and thinner than the average age and weight of patients with BED in most treatment trials, which tends to be older than 40 years and obese [5]. Such findings suggest the importance of examining the natural weight trajectories of patients before seeking treatment because they may provide an important context for interpreting the apparently modest weight losses achieved by existing treatments. For example, if patients with BED are in the midst of experiencing rapid and large weight gains before seeking treatment, then the impact of treatment on slowing or interrupting weight gains could be reinterpreted as a potentially important outcome.

The present study examined recent weight changes reported by obese patients with BED before seeking treatment. We aimed to examine participants' weight trajectories during the year before seeking treatment specifically for eating/weight problems within a primary care setting. In addition, we explored correlates of weight changes with a focus on historical obesity/dieting variables and recent eating behaviors. We hypothesized that most participants' weight patterns would be characterized by recent weight gains and that greater weight gains would be associated with higher levels of disordered eating behaviors.

1. Method

1.1. Participants

Participants were a consecutive series of 68 (17 men and 51 women) obese (body mass index [BMI], ≥30 kg/m^2) patients who met *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* [17] research criteria (based on the Eating Disorder Examination NDE; interview) for BED (either subthreshold BED criteria ≥1 binges weekly, n = 18 [26.5%], or full BED criteria ≥2 binges weekly, n = 50 [73.5%]) from primary care facilities in a large university-based medical center in an urban setting. Overall, participants had a mean (SD) age of 44.9 (11.5) years (range, 20-65 years) and a mean (SD) BMI of 37.6 (5.2) kg/m^2 (range, 30-55 kg/m^2). Ethnicity was as follows: 47.8% white, 34.3% African American, 10.4% Hispanic, 6.0% Asian, and 1.5% Native American.

1.2. Procedures

Participants were respondents for a treatment study being performed in a primary care setting for obese persons who binge eat at least once weekly. Participants provided informed consent, completed a battery of self-report questionnaires, and were then interviewed by experienced doctoral-level research clinicians who received specific training and ongoing monitoring in the administration of all of the study's structured interviews and measures. Investigators followed standard training protocols used in previous treatment studies [6]. After complete review of all criteria and all interview items, including their rationale and probing methods, new research clinicians observed trained assessors delivering interviews and rated training tapes. New research clinicians then administered practice interviews observed by investigators and received detailed feedback. After receiving "certification" based on interview and rating performances, the research clinicians continued to received ongoing monitoring consisting of review and supervision of completed interviews and participation in a larger interrater reliability study. The study procedures received institutional review board approval.

1.3. Measures

The EDE [18] is a well-established semistructured investigator-based interview that assesses the specific features of eating disorders and diagnoses [19,20]. The EDE focuses on the previous 28 days, except for the diagnostic items that are rated for the durations stipulated in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* [17]. The EDE assesses the frequency of different forms of overeating, including *objective bulimic episodes* (OBEs; ie, unusually large quantities of food with a subjective sense of loss of control), *objective overeating episodes* (OOEs; ie, unusually large quantities of food without a subjective sense of loss of control), and subjective bulimic episodes (SBEs; ie, subjective sense of loss of control but a normal or small amount of food). The EDE also assesses participants' meal frequency by asking how many times they have eaten a meal or snack (eg, breakfast, morning snack, and lunch). Our version of the EDE also included specific questions