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Why No Cognitive Body Image Feature Such As Overvaluation of Shape/Weight in the Binge Eating Disorder Diagnosis?

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Abstract

Objective—Undue influence of body shape or weight on self-evaluation — referred to as overvaluation — is considered a core feature across eating disorders, but is not a diagnostic requirement for binge eating disorder (BED). This paper addresses the relevance of a feature reflecting disturbance in body image for the diagnosis of BED.

Method—The distinction between overvaluation of shape/weight and body is discussed and empirical research regarding the concurrent and predictive significance of overvaluation of shape/weight for BED is reviewed.

Results—The literature suggests that overvaluation does not simply reflect concern or distress commensurate with excess weight, is reliably associated with greater severity of eating-related psychopathology and psychological distress, and has reliably shown negative prognostic significance.

Discussion—Overvaluation of shape/weight warrants consideration as a diagnostic specifier for BED.

Keywords

binge eating; obesity; body image; body dissatisfaction; eating disorder

Binge-eating disorder (BED), a research category in the *DSM-IV*, has been proposed as a formal diagnosis in the *DSM-5* (www.dsm5.org). BED is defined by recurrent binge eating (eating unusually large quantities of food in a discrete period accompanied by feelings of loss of control), binge-eating episodes are associated with at least 3 of 5 behavioral indicators (e.g., eating much more rapidly than usual), marked distress about the binge eating, and the absence of inappropriate weight-compensatory behaviors that are characteristic of bulimia nervosa (BN).

The Eating Disorder Work Group's proposal for *DSM-5*, in addition to making BED a formal diagnosis, revised the binge-eating frequency and duration stipulations to once weekly on average for past three months. This specific revision regarding frequency/duration of binge-eating follows empirical evidence (1) and is intended to parallel more closely the duration (as well as the new frequency) criteria for binge eating for the diagnosis

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of BN. Unlike the criteria for binge eating in the BN diagnosis, the *DSM-IV* criteria for BED require the presence of 3 of 5 "behavioral indicators" for binge eating and the presence of "marked distress." The *DSM-5* proposal for BED retains both the "behavioral indicators" and the "marked distress" criterion requirements; both requirements received empirical support in one study each (2,3) although they do not parallel the structure or requirements for defining binge eating for the diagnosis of BN.

In sharp contrast to other formal eating disorder diagnoses – BN and anorexia nervosa (AN) – the diagnosis of BED does not include a cognitive criterion pertaining to body image. *DSM-IV* and the current proposal for *DSM5* criteria for BN require the presence of "undue influence of body weight or shape on self-evaluation" (referred to here as overvaluation of shape/weight). The undue influence of body weight or shape on self-evaluation is one specific example for meeting a cognitive criterion reflecting a disturbance in body image for the diagnosis of AN. This paper addresses issues regarding the importance of the overvaluation of shape/weight in BED (4). Emerging research indicates that this specific cognitive feature is important for clinicians working with patients with BED to assess and consider during treatment formulation. Emerging research also suggests that further revision to the proposed *DSM5* criteria for BED seems indicated in order to include this cognitive construct pertaining to body image. The absence of a cognitive criterion or feature reflecting a disturbance in body image for the diagnosis of BED casts this specific eating-disorder diagnosis merely as a behavioral overeating construct. The other eating disorders are characterized by disturbances in *both* eating behavior and in how the body is evaluated.

Overvaluation of Shape/Weight versus Body Dissatisfaction

Overvaluation of body shape/weight, a related but distinct construct from the general concepts of body dissatisfaction and shape/weight concerns, is considered a core cognitive feature across eating disorders (5). Overvaluation of shape/weight is related – but should not be confused with – body dissatisfaction (6). The overvaluation (undue importance) of shape/weight is a specific construct within the broader, and more, general concepts of body image and body dissatisfaction. Many individuals in our society experience varying degrees of dissatisfaction with their appearance but relatively few individuals place such importance on shape/weight that it serves as the primary way in which they judge themselves or define their self-worth (i.e., overvaluation or "undue" importance of shape/weight) (7).

The conceptual and empirical distinction between overvaluation of shape/weight and body dissatisfaction has been supported by factor-analytic studies in patients with BED (8) as well as across diverse obese groups (9,10). Longitudinal studies have also demonstrated the distinction between body dissatisfaction and overvaluation in patients with BED (11) as well as across developmental eras (12) and obese groups (13). For example, Masheb and Grilo (11) found that among obese patients with BED, overvaluation of shape/weight was relatively stable and fluctuated more closely with changes in self-esteem longitudinally over time than with changes in mood, a finding previously found for BN (6). Lastly, latent genetic and environmental risk factor analyses in twin studies have provided further evidence for the distinction between overvaluation of shape/weight and body dissatisfaction (14).

Clinical (Concurrent) Significance of Overvaluation of Shape/Weight in BED

Studies have long established that patients with BED and other eating disorders (BN and AN) have comparable shape/weight concerns despite substantial differences in weights and ages (4,15). Recent research, which has focused more precisely on the specific construct of overvaluation of shape/weight, has consistently highlighted the clinical significance of

overvaluation suggesting that it warrant consideration in the *DSM5*-based diagnosis of BED either as a required criterion (16) or as a diagnostic specifier or subtype (17–22).

A series of complementary studies has provided convergent empirical evidence that overvaluation demonstrates concurrent validity suggesting that overvaluation warrants consideration as a diagnostic specifier because it signals greater severity within BED, but not as a required criterion, because that would result in the exclusion of many persons with clinically significant eating-pathology (17–21,23). For example, Grilo and colleagues (18) found that participants with BED categorized with overvaluation had greater eating-disorder psychopathology and depression levels than BED participants without overvaluation, but both BED groups - regardless of the presence of overvaluation - had significantly greater eating disorder psychopathology and depression than an overweight comparison group without BED. Grilo and colleagues (19) found that patients with BED categorized with overvaluation had significantly higher levels of eating-disorder psychopathology than BED patients without overvaluation who did not differ significantly from either patients with BN or patients with subthreshold BN. Goldschmidt and colleagues (17), in a community-based study, found that overvaluation predicted membership in a more severe BED group and found it accurately predicted the presence of BED versus other psychiatric diagnoses.

The clinical significance of overvaluation in BED appears to be unrelated to excess weight or potential demographic confounds such as age or ethnicity. The significant group differences associated with overvaluation in the comparative studies with overweight non-binge-eaters (18) and average weight patients with BN (19) persisted even after adjusting for significant group differences in BMI, age, and ethnicity. Most importantly, in both these comparative studies (18,19), and more recent studies (20,21) with more diverse participant groups and recruitment methods, BMI and overvaluation levels have shown nearly no associations (correlations generally close to zero). Thus, the patterns of heightened psychopathology associated with overvaluation are not attributable to excess weight or confounded by higher BMI relative to BN or control groups.

Overvaluation in BED has also been associated with greater psychological problems, including greater levels of depression and lower self-esteem (18,20,21,23), which provides further support for the clinical significance of this specific cognitive feature. Importantly, the significance group differences associated with overvaluation in BED in the comparative studies have persisted even after adjusting for depression levels (18,20,21). Thus, the presence of overvaluation provides important information about both BED severity and about associated psychological functioning, even after adjusting for depression levels, a well-known marker for distress and severity (24).

Prognostic (Predictive) Significance of Overvaluation of Shape/Weight in BED

Several recent treatment studies of BED have reported that overvaluation of shape/weight has prognostic significance. As context for this emerging literature, it is work noting that it has been difficult to identify reliable pretreatment predictors of treatment outcome for eating disorders, including BED and BN (25). Although analyses from two treatment studies for BED revealed few significant predictors, greater shape/weight concerns were associated with significant poorer outcomes (26,27). One study found that overvaluation predicted higher treatment dropout (23) and three studies reported overvaluation predicted poorer post-treatment outcomes (23,28,29). Grilo and colleagues (28) reported that overvaluation of shape/weight was the most salient predictor/moderator of treatment outcomes achieved with either cognitive behavioral therapy or medication. Overvaluation significantly predicted remission from binge eating (29% with overvaluation remitted whereas 57% without

overvaluation remitted) and the prognostic significance was especially strong for medication-only, where only 10% of BED patients with overvaluation remitted versus 42% of those without overvaluation. The prognostic significance of overvaluation persisted even after adjusting for the contribution of depression levels (28). Most recently, a fourth treatment study for BED found that the presence of overvaluation of shape/weight at baseline significantly predicted non-remission from binge eating and higher frequency of binge eating at 12-month follow-up, even after adjusting for depression and self-esteem levels (30). Collectively, these findings from four different treatment studies tested a variety of interventions for BED converge in suggesting that overvaluation of shape/weight has negative prognostic significance.

Summary

Overvaluation of shape/weight appears to have diagnostic and clinical relevance and warrants consideration as a diagnostic specifier for BED in the *DSM-5*. The comparative literature reviewed here on the concurrent validity of overvaluation in BED) suggests that - unlike the diagnosis of BN in which the present (versus absence) of overvaluation is a required criterion - the presence of overvaluation could serve as a specifier or subtype reflecting the presence of a significant cognitive disturbance in body image that also signals greater severity. The addition of this cognitive feature to the diagnosis of BED regarding a disturbance in body image would parallel the nosologic structure of the other formal eating-disorder diagnoses in the *DSM5*. The *DSM*-system has previously used such specifiers/ subtypes for other eating disorders (e.g., purging versus non-purging subtypes of bulimia nervosa, binge-purge verses restricting subtypes of anorexia nervosa) as well as for other diagnostic categories (mood disorders with mood congruent psychotic features). For BED, the presence of overvaluation would convey important information about individual differences and severity and about a clinically relevant cognitive feature that has negative prognostic significance.

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