



Body-related film clip triggers desire to binge in women with binge eating disorder

Jennifer Svaldi*, Detlef Caffier, Jens Blechert, Brunna Tuschen-Caffier

University of Freiburg, Department of Clinical Psychology and Psychotherapy, Engelbergerstrasse 41, 79106 Freiburg, Germany

ARTICLE INFO

Article history:

Received 27 January 2009

Received in revised form

10 June 2009

Accepted 10 June 2009

Keywords:

Binge eating disorder

Desire to binge

Shape and Weight concern

ABSTRACT

Previous research suggests that excessive influence of shape or weight concern on self-evaluation is strongly associated with psychological functioning in women with binge eating disorder (BED). However, little is known so far about its direct influence on binge episodes. In an experimental study, 27 women with BED (DSM-IV) and 25 overweight healthy controls watched a body-related film clip. Ratings of the desire to binge and mood were assessed prior to and at the end of the film clip. Additionally, measures of heart rate, finger pulse and electrodermal activity were obtained. Main results revealed a significant increase in the desire to binge, sadness and anxiety, as well as a significant increase in non-specific skin conductance fluctuation on the body-related clip in the group of BED only. The results underline the importance of shape and weight concerns in BED.

© 2009 Elsevier Ltd. All rights reserved.

Antecedents of binge episodes in BED

Binge eating disorder (BED) is characterized by recurrent binge eating episodes and the experience of loss of control in the absence of compensatory behavior. In the last two decades, several studies investigated the role of negative affect in the maintenance of binge episodes in BED (de Zwaan, Nutzinger, & Schoenbeck, 1992; Deaver, Miltenberger, Smyth, Meidinger, & Crosby, 2003; Henderson & Huon, 2002; Stice, Akutagawa, Gaggard, & Agras, 2000). Arnov, Kenardy, and Agras (1992), for example, administered a semi-structured interview and found negative mood to be a significant precursor of binges in obese women with BED. In an experimental study, Agras and Telch (1998) induced a negative or neutral mood in 60 women with BED before serving them a multi-item buffet. Thirty of them had previously undergone a 14-hr period of caloric deprivation. Data indicate that the negative mood induction increased the occurrence of self-defined binges independent of deprivation status. In a more recent study, Hilbert and Tuschen-Caffier (2007) used an ecological momentary assessment (EMA) on two consecutive days to examine mood preceding and following binge attacks in 20 women with BED, 20 with BN and 20 healthy controls. Results showed that mood was significantly worse before binge eating compared to normal meal intake in both BN and BED. Similar results have been reported in college students with subclinical binge eating (Wegner et al., 2002). Analyzing

antecedents and consequences of binges, Smyth et al. (2007) found that there was an increase in negative affect and a decrease in positive affect preceding binge episodes in 131 women with BN. With regard to binge consequences, there was an increment of positive and a decrement of negative affect. From another perspective, Grilo, Masheb, and Wilson (2001; Stice et al., 2001) adopted cluster analysis and identified two subtypes of BED: a pure dietary subtype and a dietary-negative affect subtype. Results of the Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994) revealed that the dietary-negative affect subtype was characterized by significantly greater eating pathology.

One limitation to the above-mentioned studies should be pointed out. Even though most of them tested the role of negative emotions in the occurrence of binge eating, none of them assessed peripheral physiology. Physiological reactivity, alongside with the experience and expression of emotions, is one of the main components of stress reaction. Especially in the context of emotion regulation, the assessment of sympathetic reactivity has been very fruitful (Gross, 1998a; Gross & John, 2003; Rottenberg, Gross, Wilhelm, Najmi, & Gotlib, 2002). Self-reports suffer from well-known limitations which can be circumvented through such assessment. The few studies that report physiological responses to emotional stressors have been conducted on women with BN and yielded contradictory results. While a study by Tuschen, Vögele, Kuhnhardt, and Cleve-Prinz (1995) found loneliness to increase sympathetic activation, Tuschen-Caffier and Vögele (1999) found no such increase. In BED, only one study (Vögele & Florin, 1997) so far tested sympathetic reactivity. The authors found that, compared to healthy controls, in women with BED the exposure to food goes

* Corresponding author. Tel.: +49 761 2039413; fax: +49 761 2033022.

E-mail address: jennifer.svaldi@psychologie.uni-freiburg.de (J. Svaldi).

along with a stronger increase of sympathetic nervous system activation, as measured by electrodermal activity and blood pressure. However, due to the different nature of the stressor, it is difficult to draw conclusions towards an emotional stressor.

While the studies mentioned above fit into a model that conceptualizes binges as an affect regulating strategy, a recent study by Munsch, Michael, Biedert, Meyer, and Margraf (2008) yielded contradictory results. The authors subjected 69 women with BED to either an unbalanced (fat rich/carbohydrate low) or a balanced nutrition plan over a period of three days and measured the amount of food intake during a taste test. Prior to food intake, all subjects had undergone a negative or a neutral mood induction. Data indicated that neither unbalanced nutrition style nor negative mood had a significant influence on the subjects' amount of food intake. Contradictory evidence also stems from the study by Wegner et al. (2002). Despite higher negative mood states on binge days compared to nonbinge days, binge eating itself did not improve mood. This stands in clear contrast to an affect regulating model of binge eating.

On the one hand, the conflictive results may be due to the differential impact emotions with different valence may have on eating behavior (Macht, 2005). Another possible explanation is that the effect negative mood and nutrition have on binge episodes may be mediated by some other factors. In an EMA study, for example, Stein et al. (2007) investigated levels of negative mood and hunger in 33 women with BED over a period of seven days. They found negative mood and hunger to be significantly higher prior to a binge attack compared to nonbinge periods. At the same time, at binge precursor times, negative mood was significantly more often attributed to weight and shape issues than to other issues. Similarly, Jansen, Havermans, Nederkoorn, and Roefs (2008) divided a sample of non-eating disordered overweight and obese persons into two subtypes, one of high and one of low negative affect. They found that body-related worrying explained one-third of the variance in negative affect levels. In another study, Jansen, Vanreyten, et al. (2008) found that, compared to obese participants in the low affect subtype group and normal weight controls, those in the high affect subtype group reacted with overeating in a tasty food exposure after a negative mood induction. In the context of affective priming theories, it is possible that the activation of a negative body schema increases negative mood which, in turn, instigates the desire to binge. Contrary to the diagnostic criteria of anorexia nervosa (AN) and BN, excessive influence of shape or weight concern on self-evaluation is not a diagnostic requirement for BED. However, a substantial number of studies using self-report questionnaires indicate that overevaluation of shape and weight is also existent in women with BED (Eldredge & Agras, 1996; Hay & Fairburn, 1998; Spitzer et al., 1993; Striegel-Moore, Wilson, Wilfley, Elder, & Brownell, 1998; Telch & Stice, 1998; Wilfley, Schwartz, Spurrell, & Fairburn, 2000; Wilson, Nonas, & Rosenblum, 1993). In a study that compared women with BED to women with BN and healthy controls on body-related cognitions during mirror exposure, Hilbert and Tuschen-Caffier (2005) found the eating-disordered groups to report more body-related negative cognitions than controls. In a recent study, Hrabosky, Masheb, White, and Grilo (2007) administered the EDE-Q (Fairburn & Beglin, 1994) to 399 consecutively admitted patients with BED and divided them into two groups of shape/weight overevaluation: one with clinical overevaluation, the other with subclinical overevaluation. Data indicated that eating pathology and psychological status were significantly worse in the clinical overevaluation group. In addition to a group of individuals with and without clinical overevaluation, Mond, Hay, Rodgers, and Owen (2007) included a group of overweight nonbinge eaters in their study using the EDE-Q. The authors replicated the results by Hrabosky et al. (2007) and extended them

by showing that participants in the low clinical overevaluation group resembled overweight nonbinge eaters. The latter two studies are the first ones to link overevaluation of weight and shape to eating behavior. What remains yet unclear is whether weight and shape concerns are also a precursor of binge episodes.

In the light of the research just mentioned, the current study was designed to extend previous results on the relevance of weight and shape in BED by testing its role in the occurrence of the desire to binge. First, we expected women with BED to have an increased emotional response when confronted with the body-related stimulus. Second, compared to healthy controls, we hypothesized women with BED would have an increased desire to binge in response to a body-related stressor. We thirdly expected the confrontation with the body-related stimulus stressful enough to increase sympathetic activity in women with BED compared to our healthy control group. As retrospective reports do not allow to infer causality, we chose an experimental approach to investigate the role of a body-related stressor in the occurrence of the desire to binge.

Method

Participants

The study was approved by the ethical committee of the University of Freiburg. Inclusion criterion for the BED group was the presence of BED. Exclusion criteria were the presence of substance abuse or addiction, bipolar disorder, current or past psychosis, schizophrenia, current suicidal ideation, pregnancy or lactation. As we wanted our results to be attributable to BED and not to the comorbid overweight/obesity, healthy controls (HC) were required to have a Body Mass Index ($BMI = \text{weight}/\text{height}^2$) > 25 . They were excluded if they were pregnant, lactating or had a lifetime diagnosis of a mental disorder, as indicated by the *Diagnostic and statistical manual of mental disorders* (DSM-IV-TR; APA, 2000).

Participants were recruited via advertisements in local newspapers and announcements at the University of Freiburg for a study of "women who suffer from binge attacks". In addition, these advertisements also included an appeal to overweight women without binge attacks to participate in the study, "as it is only possible to get a deeper insight into the problems of binge attacks when having a comparison to women without such problems". Two hundred and eighty six women responded and were screened by means of a telephone interview to determine initial eligibility. Of these, 159 were excluded from participation due to one or more of the above-mentioned exclusion criteria. The remaining 127 participants were scheduled for a diagnostic session. Of the 127 women invited, 10 did not attend the appointment.

Before starting the diagnostic session, the study rationale was explained and participants signed an informed consent. After that, they were diagnosed by means of the Structured Clinical Interview for DSM-IV Axis I (SCID; Spitzer, Williams, Gibbon, & First, 1992; Wittchen, Zaudig, & Fydrich, 1997, German version) and administered the EDE (Cooper & Fairburn, 1987; Hilbert, Tuschen-Caffier, & Ohms, 2004, German version). In addition, height and weight measures were obtained. Sixty-four women did not qualify either for the BED group or for the HC group. The remaining 27 women in the BED group and 25 HC were then scheduled for the experiment.

A conducted ANOVA revealed that the groups did not differ significantly in age, years of education and income, but the BED group had significantly higher BMI and BDI scores, and differed significantly from the HC on all questionnaires measuring eating pathology. See Table 1 for means, X^2 and F -values.

Consistent with Yanovski, Nelson, Dubbert, and Spitzer (1993), comorbidity in the group of women with BED was high: 14.8% had

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات