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Interpersonal dysfunction and affect-regulation difficulties in disordered eating among men and women

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ABSTRACT

Although several studies suggest that negative affect and interpersonal problems serve as important contributors for eating-related problems, much of this research has been conducted among women and less is known about their roles in precipitating and maintaining eating problems among men. Previous studies with undergraduate men suggest that difficulties in emotion regulation are associated with disordered eating even after controlling for differences in body mass index (BMI) and negative affect. The present study sought to replicate these findings and extend them to assess any unique variance explained by problems in interpersonal functioning among both men and women. Participants were men ($n = 213$) and women ($n = 521$) undergraduates at a large Midwestern university who completed a demographic information form, the Eating Disorder Examination-Questionnaire (EDE-Q), the Difficulties in Emotion Regulation Scale (DERS), the Positive and Negative Affect Schedule, and the Inventory of Interpersonal Problems-Short Circumplex Form (IIP-SC). A series of hierarchical regression analyses indicated that DERS and IIP-SC significantly predicted EDE-Q global scores after controlling for variability in BMI and negative affect and that the results were similar for men and women. Our findings offer preliminary support for models that highlight emotional vulnerability and interpersonal problems for disordered eating for young adult men. Future research extending these findings among treatment-seeking samples and employing multi-method assessment would serve to further clarify the tenability of these theoretical models for both men and women.

1. Introduction

Almost half of college women report binge-eating, self-induced vomiting, laxative/diuretic use, fasting, or excessive exercise to compensate for food consumption or avoid weight gain at least weekly (Berg, Frazier, & Sherr, 2009) and a significant percentage of college men also report eating disorder (ED) symptoms (Cain, Epler, Steinley, & Sher, 2012; Whiteside et al., 2007). Nonetheless, the factors associated with EDs among men are poorly understood (Slane, Burt, & Klump, 2010) and research is required to identify an appropriate theoretical framework for their disordered eating. Research examining the influence of empirically-supported factors such as affective and interpersonal difficulties on disordered eating among both men and women would facilitate an understanding of their relative influence and any potential sex differences.

Several domains of affective functioning are associated with disordered eating in women including atypical attitudes toward emotional expression (Meyer, Leung, Barry, & De Feo, 2010), increased negative affect (Ringham, Levine, Kalarchian, & Marcus, 2008), poor emotion recognition and facial expression processing (Cserjési, Vermeulen, Lénárd, & Luminet, 2011), and emotion avoidance/suppression (Davies, Schmidt, Stahl, & Tchanturia, 2011). Moreover, problems with the functional modulation of negative affect significantly contribute to binge-eating (Whiteside et al., 2007) and are central characteristics of anorexia nervosa (AN; Safer & Chen, 2011). Indeed, according to the negative affect model of disordered eating, binge-eating functions as a distraction from aversive emotions (Heatherton & Baumeister, 1991). Similarly, the cognitive–interpersonal maintenance model suggests that AN symptoms promote affective numbing and avoidance to maintain illness symptoms (Schmidt & Treasure, 2006). These studies and theories highlight difficulties in regulating emotions as risk and maintenance factors for disordered eating in women.

Few studies have examined emotion regulation difficulties and disordered eating among men. According to one study, problems with emotion regulation accounted for significant variance in ED symptomatology over and above body mass index (BMI) and negative affect among college men (Lavender & Anderson, 2010). Similarly,

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among college men and women, difficulties with emotion regulation (specifically, limited access to emotion regulation strategies and lack of emotional clarity) accounted for significant variance in binge-eating symptoms over and above dietary restriction and body shape/weight over-valuation (Whiteside et al., 2007). However, relationships among ED symptomatology, emotion regulation difficulties, and sex appear to vary based on the nature of these problems. For instance, one study reported that although impulse control and nonacceptance of emotion were similarly predictive of bulimic symptoms among men and women, having limited access to adaptive strategies was more predictive of dieting behaviors for women than men (Lafrance, Kosmerly, Mansfield-Green, & Lafrance, 2013). Overall, these studies suggest that emotion dysregulation is associated with disordered eating in both sexes, but there may be sex differences in the relative impact of specific facets of emotion regulation.

Interpersonal functioning is similarly disrupted among those with EDs (Tchanturia et al., 2012) and poor interpersonal functioning predicts poor outcomes (Hartmann, Zeeck, & Barrett, 2010). Interpersonal functioning has thus been identified as a causal and maintaining factor for disordered eating (Treasure, Corfield, & Cardi, 2012), as the positive and negative reactions of family/friends to the individual's illness may also maintain symptoms (Schmidt & Treasure, 2006). Theoretically, interpersonal dysfunction is associated with negative social evaluation, which triggers low self-esteem and negative affect; ED symptomatology becomes a substitute for one's social interactions which exacerbates interpersonal problems and worsens both eating and social functioning (Rieger et al., 2010; Wilfley, MacKenzie, Welch, Ayres, & Weissman, 2000). A recent systematic review of interpersonal functioning in ED symptomatology underscored the need to evaluate interpersonal models among men as most of the reviewed studies focused on women (Arcelus, Haslam, Farrow, & Meyer, 2013).

It is likely that emotional and interpersonal functioning exhibit reciprocal effects on ED maintenance and outcomes. The *interpersonal model of binge-eating* highlights the intersection between these areas of functioning, positing that the relationship between interpersonal problems and binge-eating is mediated by negative affect (Wilfley et al., 2000) and has been supported in an empirical examination of women (Ansell, Grilo, & White, 2012). Moreover, research suggests that individuals with AN exhibit attenuated facial expressiveness in response to positive and negative film-clips (Davies et al., 2011); given the significance of facial cues in communicating social information, this could substantially influence the responses of others (Davies et al., 2011), and thereby exacerbate interpersonal problems. It remains unclear if this is also true for men.

Binge-eating is equally common among men and women and is associated with comparable levels of clinical impairment via symptoms of depression, stress, and work-related dysfunction (Streigel, Bedrosian, Wang, & Schwartz, 2002); thus, the under-representation of men in ED research fails to reflect the degree to which they are impacted by ED-related difficulties. The aims of the present study were three-fold: first, we sought to replicate earlier findings suggesting that emotion regulation difficulties account for variance in ED symptoms over and above BMI and negative affect for men and women (Lavender & Anderson, 2010). Second, we sought to investigate which specific facets of emotion regulation difficulties were most closely linked with ED symptomatology among men and women (Whiteside et al., 2007). Finally, we sought to investigate the relative contributions of interpersonal problems to ED symptoms, over and above BMI and negative affect, for men and women.

2. Method

2.1. Participants

Participants were women ($n = 521$) and men ($n = 213$) undergraduates at a large Midwestern university. Ages ranged from 18 to 29 years ($M = 19.75$; $SD = 1.55$). Most participants self-identified as Caucasian (83.1%) and self-reported BMI ranged from 15.37 to 52.56 ($M = 23.43$, $SD = 4.16$).

2.2. Measures

2.2.1. Eating Disorder Examination-Questionnaire (EDE-Q; Fairburn and Bèglin, 1994)

The EDE-Q, a 36-item self-report questionnaire, assesses ED thoughts and behaviors through four subscales (dietary restraint, eating concerns, shape concerns, and weight concerns) and a global score for general eating-related problems. It demonstrates good convergent, criterion, and predictive validity among women and men (Fairburn & Bèglin, 1994; Lavender, De Young, & Anderson, 2010; Reas, Overas, & Ro, 2012). In the present study, Cronbach's alphas for the EDE-Q global scores were .95 (separately for men and women).

2.2.2. Inventory of Interpersonal Problems-Short Circumplex Form (IIP-SC; Soldz, Budman, Demby, & Merry, 1998)

The IIP-SC, a 32-item self-report measure, assesses problems in interpersonal functioning from the perspective of the interpersonal circumplex. Research supports the reliability and validity of the IIP-SC in undergraduate (Hopwood, Pincus, DeMoor, & Koonce, 2008) samples. Cronbach's alphas for IIP-SC total scores in the current study were .95 (men) and .92 (women).

2.2.3. Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988)

The PANAS, a 20-item self-report questionnaire, involves rating one's experiences of positive and negative affective states during the past week. Cronbach's alphas for the negative affect subscale in the current study were .91 (men) and .88 (women).

2.2.4. Difficulties with Emotion Regulation Scale (DERS; Gratz and Roemer, 2004)

The DERS, a 36-item questionnaire, assesses the extent to which an individual feels capable of adjusting his/her emotional arousal and is accepting and understanding of this arousal. Items assess six dimensions of emotion regulation difficulties: lack of awareness of emotional responses ("awareness," 6 items), lack of clarity of emotional responses ("clarity," 5 items), nonacceptance of emotional response ("nonacceptance," 6 items), limited access to emotion regulation strategies perceived as effective ("strategies," 8 items), difficulties controlling impulses when experiencing negative emotions ("impulse," 6 items), and difficulties engaging in goal-directed behaviors when experiencing negative emotions ("goals," 5 items). Previous research supports DERS internal consistency (Whiteside et al., 2007), test–retest reliability, and correlations with clinically relevant markers (Gratz & Roemer, 2004). Cronbach's alphas for the DERS subscales in the current study ranged from .77–.88 (men) to .82–.90 (women).

2.3. Data analysis

Sex differences in ED symptomatology (i.e., EDE-Q global score), BMI, PANAS negative affect (PANAS-NA) and the independent variables (i.e., DERS sum score, subscales, and IIP-SC total score) were examined through independent samples t-tests. To examine relationships between the independent variables and ED symptomatology, separate hierarchical regression analyses were conducted regressing EDE-Q global scores on 1) overall emotion dysregulation (DERS sum scores), 2) specific facets of emotion dysregulation (DERS subscales), and 3) overall interpersonal problems (IIP-SC total score). BMI and PANAS-NA were included as covariates in these regression models as individuals with higher BMIs and/or increased negative affect have been shown to have higher levels of disordered eating (Reas et al., 2012; Stice, 2002). Baseline models included covariates only (i.e., sex, BMI, and PANAS-NA).