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# Adult Attachment and Disordered Eating in Undergraduate Men and Women

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## Abstract

Previous research on gender differences between males and females on the risk factors leading to disordered eating is sparse, especially on males and eating disorders using attachment theory. This study examined the relationship between adult attachment style and disordered eating in men and women. Secure attachment scores were significantly negatively correlated with body dissatisfaction, and fearful attachment scores were positively correlated with bulimia in women. For men, secure attachment was significantly negatively correlated to drive for thinness, bulimia, and body dissatisfaction. Clinical implications are discussed.

**Key Words:** disordered eating, gender, attachment style, undergraduates

Eating disorders threaten the physical and mental health of an alarming number of people today. The prevalence of these serious disorders has increased in recent years (Kitsantas, Gilligan, & Kamanta, 2003). Precise estimates of incidence and prevalence vary, but tend to range from about 3% to 10% for females 15-29 years of age (Polivy & Herman, 2002) and about 2.4% for males (Espina, Ortego, Ochoa, Aleman, & Juaniz, 2002). Although a majority of the research in the field of eating disorders focuses on women, recently attention to these topics in males has been on the rise (Pope, Phillips, & Olivardia, 2002). In fact, it has been estimated that 10% of the people with anorexia and bulimia nervosa are men (Weltzin et al., 2005). Virtually all conceptualizations of eating disorders make reference to body image (Polivy & Herman, 2002). Body image is characteristically defined as self-appraisals and emotional experiences about one's physical appearance (Braitman & Ramanaiah, 1999) and body dissatisfaction is defined as negative feelings about the body (Polivy & Herman, 2002). It has been shown that body dissatisfaction characterizes persons with eating disorders and it is central to self concept and has important implications for interpersonal psychological functioning and the quality of life (Pruzinsky & Cash, 2002). Concern over body shape is even more prevalent than are eating disorders, with research indicating 32% of females and 8.9% of males being affected (Espina et al., 2002).

Eating disorders are serious and can be life threatening. Medical risks include electrolyte imbalances, cardiac arrhythmias, and the female athlete triad (Petrie & Rogers, 2001; Thompson, 1996) defined as a combination of an eating disorder, osteoporosis and amenorrhea all at the same time. Even more alarming is the number of people who die from eating disorders. One meta-analytic study found a mortality rate of 5.9% (Neumarker, 1997). Because of the alarming prevalence and severity of these disorders, it is imperative that researchers investigate factors that may contribute to body image dissatisfaction and eating disordered behavior, so as to inform clinicians and therapists of factors to focus on during treatment. Eating disorders are complex diseases and do not arise from a single cause, but are thought to develop due to a combination of biological, cultural, personality, family and social factors (Beumont, Russell, & Touyez, 1993; Garfinkel & Garner, 1982). Recent studies estimate that more than half of the risk of developing anorexia is genetic (Bulik et al., 2006). In addition, research has found that disordered eating attitudes increase with perfectionism in both men and women (Hopkinson & Lock, 2004) and that perfectionism is associated with body dissatisfaction in women (Ruggiero, Levi, Ciuna, & Sassaroll, 2003). Hopkinson and Lock (2004) also found that the greatest risk factor for disordered eating attitudes in females was perfectionism. Another study determined that how often individuals view media, particularly media believed to promote thinness, predicts drive for thinness, body dissatisfaction, and disordered-eating symptomatology in a sample of undergraduate women (Harrison & Cantor, 1997). Studies have also shown that family environment can play a role in the development of eating disorders in college students (Twamley & Davis, 1999). Previous research has found that pressure from family members to diet led to increased rates of bulimic symptomatology (Pauls & Daniels, 2000). Similarly, weight or shape

related criticism or teasing by family members or others was found to contribute significantly to body dissatisfaction (Gleason et al., 2000; Rieves & Cash, 1996). Although many theoretical and research perspectives on the causes of eating disorders have been proposed, each adding insight into causes of these disorders, but anorexia and bulimia are not completely understood.

Because attachment is hypothesized to begin in infancy and be relatively stable throughout the lifespan (Bowlby, 1979), attachment theory has been identified as having important utility in many areas of psychological functioning and is commonly used as a way to conceptualize emotional, social, and interpersonal problems that begin early in life. Because the onset of eating disorders occurs in adolescence and early adulthood (Hoek et al., 1995) and attachment theory focuses on parent-child relationships, attachment theory may be helpful in understanding the development of eating disorders. Research indicates that insecure attachment is related to several factors characteristic of eating disorders, including anxiety, self-esteem, and depression (Corte & Stein, 2005; Kaye, Bulik, Thornton, Barbarich, & Masters, 2004; McCabe & Vincent, 2003; Mora-Giral, Raich-Escursell, Segues, Torras-Claraso, & Huon, 2004; Pearlstein, 2002; Stafford, Alloy, Crossfield, Morocoo, & Wang, 2004; Williams & Riskind, 2004). Attachment theory, therefore, may have important implications in the development and maintenance of eating disorders, and may be an important factor for clinicians to focus on during treatment.

Attachment theory is concerned with the development of internal working models. According to Bowlby (1969), infants and their caregivers are biologically predisposed to become attached to each other. The attachment beliefs are developed in order to promote security and its primary function is the protection of the infant from external threats or danger. Based on the interaction with the caregiver, the child begins forming internal working models of the self, the caregiver and the relationship between the two (Bowlby, 1973). The attachment styles resulting from the interaction between parent and child persist throughout the lifespan (Bowlby, 1969).

Building on Bowlby's theory (1969) about infant attachment, Ainsworth (1978) identified three attachment styles. Based on infants' reactions after being separated from their caregivers, they were classified as secure, anxious-ambivalent, or avoidant. Securely attached children welcome the caregivers return after the separation, seek proximity, and are readily comforted in times of distress. Anxious-Ambivalent infants show ambivalent behavior towards their caregiver and are not easily comforted when they are distressed. Avoidant infants avoid interaction or getting close to their caregiver.

Hazen and Shaver (1987) expanded upon Ainsworth's (1978) three-category attachment theory by including adults on the basis that adult romantic bonds are similar to that of parent-child bonds. Each infant attachment style has certain aspects that shown through behaviors in adults in romantic relationships who have the same attachment style. A secure attachment style is characterized by easily getting close to and trusting others. Someone with an anxious-ambivalent attachment style desires close relationships, yet is fearful of not being loved. These people, therefore, become easily absorbed in relationships to lessen their fears. An adult with an avoidant attachment style downplays the importance of intimate relationships and is skeptical of other's intentions.

Many models of attachment have been proposed, but recently the four-category model of adult attachment proposed by Bartholomew and Horowitz (1991) has been widely used. In this model, secure and preoccupied (anxious-ambivalent) styles remained, while two distinct types of anxious-avoidant attachment were identified. These new attachment styles were called fearful and dismissing. Fearful individuals avoid intimacy due to a fear of rejection, while dismissing individuals avoid intimacy because of desire for independence.

This 4-category attachment model is based on the idea that every individual has a positive or negative view of the self (worthy of love and support or not) and a positive or negative view of others (trustworthy and available or unreliable and rejecting), thus combining to form the four attachment styles. Those individuals with both a positive view of self and a positive view of other are considered to have a secure attachment style. Secure individuals are characterized by both an internalized sense of self-worth and comfort with intimacy in close relationships. Persons with a positive view of self and a negative view of other have a dismissing attachment style, characterized by avoiding closeness with others because of negative expectations. They maintain their high sense of self-worth by denying the value of close relationships and stress the importance of independence.

Those with a negative view of self and a positive view of others have a preoccupied attachment style. These individuals have a deep sense of unworthiness but have a positive view of others causing them to seek excessive closeness, often leaving them vulnerable to emotional distress when their needs are not met. Fearful attachment is derived from a negative view of both self and others. People who fall into this category are characterized by a sense of unworthiness combined with an expectation that others will be untrustworthy and rejecting. They desire intimate relationships with others, but often avoid them to protect themselves against anticipated rejection by others.

Recently, a line of research has demonstrated a link between attachment styles and eating disorders. In a sample of 547 college females, Becker, Bell, and Billington (1987) found that participants with bulimic eating patterns scored significantly higher than did women without eating disturbances in an object relation subscale measuring ambivalent interpersonal relations and fear of object loss. Also, in a non-clinical sample of young women, a significant relationship was found between reports of eating/body concerns and insecure attachment (Evans & Wertheim, 1998). In a study by Broberg, Hjalmlers, and Nevenon (2001), 145 female patients who has attended an outpatient clinic for eating disorders and 315 control women were used examine the connection between eating disorder symptoms and insecure attachment. They found that 75% of women reporting never having an eating disorder had a secure attachment pattern, whereas less than 50% of those with an eating disorder had a secure attachment style. Also, women in the normal group who indicated that they had eating disorder problems had more similar attachment patterns to the patient group than to the rest of the normal group.

Sharpe and her colleagues (1998) used a single-item attachment measure and found that insecurely attached girls were more preoccupied with thinness and body shape than were securely attached girls. They were also at greater risk of developing an eating disorder. A study by Cash, Thériault, and Annis (2004) was the only one to examine both men and women. They found secure attachment for both genders to be significantly related to greater body image satisfaction and less dysfunctional self-investment in appearance.

Armstrong and Roth (1989) compared 27 eating disorder patients with 2 control groups using Bowlby's theory of attachment. Participants completed the Hansburg Separation Anxiety Test, a projective measure of attachment and adult separation. Results of the study showed more severe separation and attachment anxiety in the eating disorder group. Specifically, ninety-six percent of the eating disordered participants showed anxious attachment.

Using Ainsworth's (1978) three-category model of attachment, Salzman (1997) found a very high frequency of eating disorders in women with ambivalent (anxious) attachment relative to all other attachment categories. Using the Adolescent Attachment Interview, Salzman observed that seven of the eleven participants with ambivalent (anxious) attachment reported having clinically diagnosed anorexia previous to the study.

To date, only a few studies have used Bartholomew's model of attachment to examine attachment and eating disorders. Using this model is important since it differentiates between two types of avoidant attachment, dismissing (positive view of self and negative view of others) and fearful (negative view of self and negative view of others). Suldo and Sandberg (2000) examined a sample of 169 college women using multivariate multiple linear regression analysis. The four attachment scores (secure, preoccupied, fearful, avoidant) were entered as predictors disordered eating scores. Results indicated that preoccupied (anxious) attachment scores were positively correlated with eating disorder symptomatology.

Another study employing Bartholomew's model of attachment examined female eating disorder patients and a nonclinical comparison to determine if participants' attachment styles would accurately predict membership to the eating disordered group and the normal control group (Freidberg & Lyddon, 1996). Results showed that preoccupied and secure attachment styles (but not dismissing or fearful) were the discriminating factors in predicting membership to the eating disorder or the non-eating disorder groups respectively.

Whereas numerous studies have shown the link between anxious attachment and disordered eating, others have found avoidant attachment to be correlated to eating disorders. Latzer, Hochdorf, Bachar, and Conetti (2002) administered the Adult Attachment Scale to anorexic and bulimic patients at an eating disorder clinic. They found the most prevalent attachment style of ED women was the avoidant style, whereas the secure attachment

style was the most predominant among the control women. The Eating disorder patients were found to be less secure, more avoidant, and more anxious than the control group. Using the Adult Attachment Interview in a sample of female college students, Cole-Detke and Kobak (1996) found that women with deactivating attachment strategies (avoidant) had higher levels of disordered eating, whereas those with hyperactivating strategies (preoccupied) did not. Lastly, Brennan and Shaver (1995) found secure attachment ratings were negatively correlated with eating disorder symptomatology, yet both anxious-ambivalent and avoidant attachment ratings were positively associated with the EDI scores in a sample of female college students.

It is clear from the literature that there is a link between eating disorders and insecure attachment, yet it is unclear which specific attachment style is related to eating disorders. It is hard to compare findings across studies because of the numerous measures of attachment that are used. It is important to use Bartholomew's four-category model of attachment because it differentiates between two avoidant attachment patterns. Also, there is substantial data supporting the construct validity of the four attachment styles (Griffin & Bartholomew, 1994). A major limitation of previous research is that nearly all of these studies examined exclusively women. Although a majority of the research in the field of eating disorders and body dissatisfaction focuses on women, recently attention to these topics in males has been on the rise (Pope, Phillips, & Olivardia, 2002). Although research has established that disordered eating is more prevalent in women than in men (Espina et al., 2002; Polivy & Herman, 2002), previous research on gender differences between males and females in the risk factors leading to disordered eating and body dissatisfaction is sparse. Studies have suggested reasons for this difference may include factors such as media influencing women more than men (Ogden & Munday, 1996), and self esteem being more tied to body satisfaction for women than for men (Henriques & Calhoun, 1999). Though research on males and eating disorders is increasing, there is still very little research on males and eating disorders using attachment theory. Thus, for clinicians to effectively treat males suffering from disordered eating, more research focusing on males much be conducted.

Thus, the purpose of this study is improve our understanding of body dissatisfaction and disordered eating in a population of male and female undergraduates using attachment theory. Specifically, we want to examine the relationship of adult attachment style to body disordered eating using Bartholomew's four-category model of attachment. Based on previous research, we hypothesized that those with a preoccupied attachment style and those with a fearful attachment style would score higher on measures of disordered eating. We also predicted that participants with a secure attachment style would score lower on measures of disordered eating. Our hypotheses are based on the premise that both preoccupied and fearful attachment styles are characterized by a negative view of self, which is characteristic of women with eating disorders. Because there is very little research in the area of disordered eating from an attachment perspective in men, our goal was to examine this relationship the aim of identifying possible differences between the two genders.

## **Method**

### *Participants*

Three hundred twenty nine undergraduates (207 women, 121 men) at a large western state university participated in this study. They were all students of Psychology 101 and received course credit for their participation in this study. Participants were given a packet of questionnaires to complete in a 50 minute session. The ages ranged from 17 to 68 ( $M = 22.17$ ,  $SD = 7.14$ ). Approximately 90% were Caucasian.

### *Measures*

#### *Attachment*

Attachment styles were assessed using the Relationship Questionnaire (RQ) developed by Bartholomew and Horowitz (1991). The RQ contains four short paragraphs describing the four attachment patterns (secure, fearful, preoccupied, and dismissing). The paragraphs are not labeled by attachment style, but with the letters A-D. Participants are asked to rate themselves on a seven-point scale the degree to which each of the descriptions is indicative of their feelings about close relationships. The RQ attachment ratings show convergent validity with adult attachment interview ratings (Bartholomew & Horowitz, 1991) and moderately high stability over eight months (Scharfe & Bartholomew, 1998).

### *Disordered eating and body dissatisfaction*

Disordered eating behaviors were assessed with the Eating Disorder Inventory (Garner, Olmstead, & Polivy, 1983), which asked about students' eating habits (e.g., I eat when I am upset) as well as how they feel about their bodies (e.g., I think that my stomach is too big). Responses were rated on a 5-point scale ( $0=never/rarely$ ,  $4=always$ ), with higher scores indicating more disordered eating and body dissatisfaction. We used the three subscales most often identified with disordered eating and body image dissatisfaction: drive for thinness (preoccupation with weight and dieting), bulimia (tendencies to think about and engage in bingeing or purging), and body dissatisfaction (dissatisfaction with shape and size of various body parts such as stomach). The EDI has good internal consistency, with scores on the subscales ranging from .77 to .90.

## **Results**

The means and standard deviations of all variables are presented in Table 1. Attachment scores range from 1 to 7, representing the degree to which respondents indicate how much they resemble each of the attachment styles.

### *Relationship between Attachment Scores and Disordered Eating in Women*

Multivariate multiple linear regression analysis was used to examine the relationship between EDI scores and attachment scores separately for women and men. The four attachment scores (secure, fearful, preoccupied, dismissing) were simultaneously entered as predictors of each of the three EDI scores (drive for thinness, bulimia, body dissatisfaction). For women, the analysis yielded a significant multivariate effect,  $F(3, 186) = 17.32, p < .001$ . Univariate analyses indicated that attachment scores were significantly associated with bulimia,  $F(4, 188) = 3.45, p \leq .01$ . There was a nonsignificant trend for body dissatisfaction,  $F(4, 188) = 2.41, p = .051$ . There was not a significant effect for drive for thinness,  $F(4, 188) = 1.83$ . Follow up univariate regression analyses indicated that, when considered simultaneously, only fearful attachment scores were significantly correlated with bulimia ( $B = .32, SE B = .11, \beta = .22, p < .01$ ). In contrast, only secure attachment scores were significantly correlated with body dissatisfaction ( $B = -.58, SE B = .29, \beta = -.16, p \leq .05$ ). Finally, there were no significant predictors of drive for thinness. Bivariate correlations between the attachment ratings and EDI scores are shown in Table 2.

### *Relationship between Attachment Scores and Disordered Eating in Men*

For men, the analysis yielded a significant multivariate effect,  $F(3, 108) = 8.30, p < .001$ . Univariate analyses indicated that attachment scores were significantly associated with drive for thinness,  $F(4, 110) = 3.23, p < .05$ . There was not a significant effect for bulimia,  $F(4, 110) = 1.83$ , or body dissatisfaction,  $F(4, 110) = 1.54$ . Follow up univariate regression analyses indicated that, when considered simultaneously, only secure attachment scores were significantly correlated with drive for thinness ( $B = -.67, SE B = .19, \beta = -.34, p \leq .001$ ), as well as bulimia ( $B = -.37, SE B = .15, \beta = -.24, p < .05$ ), and body dissatisfaction ( $B = -.65, SE B = .33, \beta = -.20, p \leq .05$ ). Bivariate correlations between the attachment ratings and EDI scores are shown in Table 2.

## **Discussion**

The purpose of this study was to improve our understanding of disordered eating in a population of male and female undergraduates by examining the relation between adult attachment style and disordered eating using Bartholomew's four-category model of attachment. For women, we hypothesized that those with a preoccupied attachment style and those with a fearful attachment style would score higher on measures of disordered eating. We also predicted that participants with a secure attachment style would score lower on measures of disordered eating. Because there is very little research in the area of disordered eating from an attachment perspective in men, our goal was to examine this relationship the aim of identifying possible differences between the two genders. As will be discussed below, we found partial support for our hypotheses.

We first examined the role adult attachment plays in disordered eating in women. We entered the attachment scores simultaneously and found that secure attachment scores were significantly negatively correlated with body dissatisfaction, which is consistent with the literature (Brennan & Shaver, 1995; Broberg et al., 2001; Freidberg & Lyddon, 1996). We also found that fearful attachment scores (negative view of self and negative view of others) were positively correlated with bulimia. This is consistent with a body of literature linking avoidant attachment styles to eating disorder symptomatology (Brennan & Shaver 1995; Cole-Detke & Kobak, 1996; Latzer et al., 2002). However, we did not find that dismissing attachment, which is also a type of avoidant attachment, to be associated with any of the measures of disordered eating. Dismissing and fearful attachment

are both characterized by avoiding relationships due to a negative view of others, but they are differentiated by their view of self. Fearful individuals have a negative view of self whereas dismissing individuals have a positive view of self.

Based on previous research (Salzman, 1997; Suldo & Sandberg, 2000), we had hypothesized that those with a preoccupied attachment style and those with a fearful attachment style would score higher on measures of disordered eating, as they are both characterized by a negative view of self. However, it appears that rather than just being a result of a negative view of self, it is the combination of negative view of self and negative view of others that predicts disordered eating. Thus, this may be why fearful attachment is correlated with disordered eating, whereas dismissing and preoccupied are not. Contrary to our prediction, we found preoccupied attachment scores were not correlated with disordered eating, which is similar to the findings of Cole-Detke and Kobak (1996). These finding, however, are inconsistent with numerous other studies that have shown a link between preoccupied attachment and disordered eating (Armstrong & Roth, 1989; Friedberg & Lyddon, 1996; Salzman, 1997; Suldo & Sandberg, 2000). Preoccupied and fearful attachment styles are both characterized by a negative view of self, but the difference in the two comes from the view of others. People with a preoccupied attachment have a positive view of others, whereas those with a fearful attachment have a negative view others. Again, the combination of negative view of self and negative view of others may be why fearful attachment is predictive of disordered eating, whereas neither preoccupied or dismissing are. Also, some of our differences may be due to differences in the population used in this study (undergraduates) versus the populations used in previous studies (e.g., adolescents, clinical populations).

For men, we found that secure attachment was significantly negatively correlated to drive for thinness, bulimia, and body dissatisfaction. Preoccupied, fearful, and dismissing attachment styles were not related to any of the measures of disordered eating in males. Similar to our findings with women and those of the literature (Brennan & Shaver, 1995; Broberg et al., 2001; Freidberg & Lyddon, 1996), men who are securely attached are less likely to exhibit any type of disordered eating behavior. However, unlike women, insecure attachment styles do not seem to predict disordered eating behaviors. Thus, future studies should examine why attachment styles are more predictive of disordered eating in women than in men.

### *Limitations*

Despite our contributions, there are several limitations that must be addressed. First, the participants in our study were all college students, with a mean age in the early 20's. This limits the generalizability of the results to other groups of people such as older adults and adolescents. Second, a majority of the students in this sample are Caucasian preventing us from exploring possible differences in ethnic groups as well as limiting the generalizability of our findings to other ethnic groups. Third, our study focused on a sample of undergraduate students. Future studies using clinical populations which use structured diagnostic interviews would add to our understanding of how adult attachment models are related to clinical eating disorders. Fourth, it is important to understand that eating disorders are very complex diseases that arise from a combination of factors. Attachment theory is a way to help understand the etiology, but there are many other factors that may contribute to disordered eating. Furthermore, because attachment develops in infancy and is relatively stable throughout the lifespan (Bowlby, 1979), we can suppose that the attachment style predicates the disordered eating. However, as our analyses were correlational in nature, we cannot state this relation as causal and the relation may in fact be bidirectional.

### **Conclusion**

Despite these limitations, these findings add to the literature by identifying a relationship between disordered eating and attachment style in undergraduate men and women. Specifically, we found that men with secure attachment styles are less likely to exhibit disordered eating behaviors, but there was no relationship for men with insecure attachment styles. On the other hand, for women, secure attachment is negatively associated with disordered eating and fearful attachment was positively associated. These findings suggest women who are fearful of rejection may be more at risk for an eating disorder. Thus, clinicians treating women with disordered eating should assess attachment when designing effective treatments. Focusing on interpersonal relationships may be important components for treatment.

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Table 1

*Means and Standard Deviations of Attachment and EDI scores by Gender*

	Men	Women
Secure	3.06 (2.04)	2.83 (2.08)
Fearful	2.56 (1.87)	3.11 (2.14)
Preoccupied	1.86 (1.50)	1.80 (1.57)
Dismissing	2.66 (1.92)	2.31 (1.82)
Drive for Thinness	2.70 (3.94)	6.38 (5.96)
Bulimia	1.61 (3.09)	1.93 (2.94)
Body Dissatisfaction	6.59 (6.49)	11.59 (7.54)

Table 2

*Correlations between Adult Attachment ratings and EDI scores*

	Secure	Fearful	Preoccupied	Dismissing
<i>Women</i>				
Drive For Thinness	-.12	.12	.02	-.05
Bulimia	-.08	.22**	.13	-.09
Body Dissatisfaction	-.13*	.11	.11	-.07
<i>Men</i>				
Drive For Thinness	-.29*	.05	-.01	-.07
Bulimia	-.22*	.03	.09	.05
Body Dissatisfaction	-.22*	.11	-.05	.08

Note: \*  $p < .05$ , \*\* $p < .01$