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Adult Attachment and Body Dissatisfaction: The Role of Ethnicity

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UNIVERSITY OF MIAMI

ADULT ATTACHMENT AND BODY DISSATISFACTION:
THE ROLE OF ETHNICITY

By

Caryn B. Watsky-Scileppi

A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

Coral Gables, Florida

June 2011

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ADULT ATTACHMENT AND BODY DISSATISFACTION:
THE ROLE OF ETHNICITY

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Adult Attachment and Body Dissatisfaction:
The Role of Ethnicity

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Body dissatisfaction has become commonplace, however, it has been associated with several detrimental outcomes, including eating disorders, depression, and suicidality. Despite having larger Body Mass Indexes, African American women have reported more satisfaction with their bodies than Caucasian American women. Anxious attachment has been found to relate to body dissatisfaction; however, this study was the first to explore whether this relationship differs across ethnic groups. American societal beliefs about attractiveness and ethnic identity were also explored as potential moderators of the relationship between anxious attachment and body dissatisfaction. Purposive sampling was used to identify students from colleges with diverse ethnic representation for recruitment. Participants were 233 Caucasian American and 108 African American women recruited from ethnically diverse colleges in the Northeast and Southeast United States. Hypotheses were tested using hierarchical multiple regression and one-way analysis of covariance. Past findings regarding ethnic differences in body dissatisfaction were replicated as were findings regarding ethnic differences in attachment styles and the relationship between anxious attachment and body dissatisfaction, even after controlling for negative affect. Results of the primary analyses indicated no moderation by ethnicity of the relationship between anxious attachment and body dissatisfaction. Beliefs about attractiveness was found to moderate this relationship for Caucasian American but not

African American women, and there was a trend for the moderation of the relationship between anxious attachment and body dissatisfaction by ethnic identity for the African American women in this sample. Implications for prevention and therapeutic interventions are discussed.

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CHAPTER 1

INTRODUCTION

In today's diet-obsessed society, it is common for people to talk about wanting to become thinner or improve their appearance. What may be surprising, however, is the degree to which women and adolescents are reporting dislike of their bodies. For example, it has been reported that 40% to 70% of adolescent girls are unhappy with at least two parts of their bodies, that 50% to 80% of girls this age wish to be thinner (Levine & Smolak, 2002), and that 80% of American women are dissatisfied with their appearance (Smolak, 1996). What may be even more alarming is the percentage of children who are experiencing such distress. For example, 42% of elementary students (1st to 3rd graders) report wanting to be thinner (Collins, 1991), 81% of 10-year-olds report a fear of being fat (McNutt et. al., 1997), 46% of 9-11 year-olds are going on diets (Gustafson-Larson & Terry, 1992), and children as young as 6 years old express body dissatisfaction and weight concerns (Smolak, 2002). In fact, many authors have used the term "normative discontent" to describe the ubiquitous state of body dissatisfaction being experienced by girls and women in Western societies (Rodin, Silberstein, & Striegel-Moore, 1985; Striegel-Moore & Franco, 2002).

The fact that body image dissatisfaction has become commonplace, however, does not detract from the difficulties that dislike of one's body or size may cause individuals. Not only does body dissatisfaction fuel the dieting cycle that can be very expensive (Smolak, 1996), may lead to subsequent overeating (Stice, 2002), and may have negative physical consequences (National Task Force, 1994; National Task Force, 2000), it has also been linked to several mental illnesses. Most commonly, disturbance in

body image is a criterion for eating disorders such as anorexia nervosa, which has the highest mortality rate of any mental illness (Sullivan, 1995). Additionally, several studies have shown body image to be related to self esteem (Streigel-Moore & Franko, 2002), while others have linked negative body satisfaction to depression and depressive symptoms (Stice & Bearman, 2001; Stice, Hayward, Cameron, Killen, & Taylor, 2000). Of perhaps greatest concern is a recent finding that negative body image has been shown to predict suicide in adolescents over and above the “traditional risk factors” of depression, hopelessness, and past suicidal ideation (Brausch & Muehlenkamp, 2007).

Given all of these factors, it is important that we seek to more fully understand the causes of body dissatisfaction and work towards alleviating this distress. One means of investigation may involve looking at groups of women who may have somewhat less difficulty in this area, and assessing the potential reasons for their more positive body assessments. Interestingly, it does not appear as if different ethnicities experience body dissatisfaction to the same extent. More specifically, African American females have been found to have a more positive body image than Caucasian American females in an abundance of studies, including three recent meta-analyses (Grabe & Hyde, 2006; Roberts, Cash, Feingold, & Johnson, 2006; Wildes, Emery, & Simons, 2001).

Accordingly, it may be helpful to investigate reasons for this discrepancy to help pinpoint factors that may be contributing to women’s negative body images. This knowledge may be useful in terms of designing appropriate interventions for women experiencing body dissatisfaction and related psychiatric disorders. Additionally, it may be possible that different cultural groups of women experience body dissatisfaction differently and for

different reasons (which may be impacted by ethnic identity), and it may be helpful to understand these differences as well.

A promising new topic which may help elucidate these ethnic differences is the relationship between adult attachment and body dissatisfaction. Since by definition, anxiously attached individuals place great importance on acceptance by others (Brennan, Clark, & Shaver, 1998), it stands to reason that body image may be highly salient to such individuals. In several studies with largely Caucasian samples, attachment (particularly anxious attachment) has been found to relate to body dissatisfaction wherein the higher one's anxious attachment, the more dissatisfied one is with one's body (Cash, Thériault, & Annis, 2004; Greenwood & Pietromonaco, 2004). In their study of general and romantic attachment, Cash et al. found that no other attachment variable predicted body image over and above anxious attachment, which explained 14% of the variability in overall body image.

Interestingly, the limited research on adult attachment and ethnicity points to African American and Caucasian women displaying similar levels of anxious attachment (Lopez, Melendez, & Rice, 2000; Wei, Russell, Mallinckrodt, & Zakalik, 2004). Since body dissatisfaction does not appear to be equally distributed among ethnic groups (with African American women reporting less body dissatisfaction than Caucasian American women) and since the relationship between anxious attachment and body dissatisfaction has been found in primarily Caucasian samples (with no comparisons across ethnic groups), the question may be raised as to whether the relationship between anxious attachment and body dissatisfaction apparent among Caucasian American women is also present for African American women. In other words, although anxious attachment may

provide a good explanatory variable for Caucasian American women's body dissatisfaction, it is reasonable to question whether anxious attachment predicts body dissatisfaction for African American women given that these women have been found to display comparable levels of anxious attachment but lower levels of body dissatisfaction than their Caucasian American counterparts.

More specifically, this dissertation attempted to answer the following questions: First, can adult attachment help us better understand the relationship between ethnicity and body dissatisfaction? Second, since most of the research on attachment and body dissatisfaction has been done using primarily Caucasian samples, does the relationship between anxious attachment and body dissatisfaction even extend to members of other ethnic groups? Third, if this relationship does extend to African Americans, is the strength of this relationship equal to that for Caucasian Americans or is the relationship between attachment and body dissatisfaction different for the two groups? Finally, since the majority racial/ethnic group has been associated with higher levels of body dissatisfaction, will the relationship between attachment and body dissatisfaction be more robust for African American women who more strongly endorse dominant American societal beliefs about attractiveness? Likewise, will this relationship between attachment and body dissatisfaction be stronger for African American women who identify less with African American culture?

CHAPTER 2

LITERATURE REVIEW

Ethnicity and Body Image

Body image is a multidimensional concept, comprised of “perceptual, attitudinal, and affective components” (Streigel-Moore & Franko, 2002, p. 183). According to Stice (2002), body image disturbance refers to the “(1) internalization of the socioculturally prescribed body image ideal (thin-ideal internalization), (2) negative subjective evaluations of one’s physical appearance (body dissatisfaction), and (3) distorted perceptions of body image” (Stice, 2002; p. 304). Since the thin-ideal is thought to be a Western cultural phenomenon (Jackson, 2002), many studies have been performed to assess whether such disturbance varies across ethnic groups. In the recent past, several meta-analyses have been performed to combine this research and assess these differences. As discussed below, the only consistent finding with regard to ethnicity is that Black women are more satisfied with their bodies than White women.

In their meta-analysis, Wildes et al. (2001) reviewed 35 studies that compared eating disturbance and body dissatisfaction in White and non-White populations quantitatively (note that the non-White group included, but was not limited to, Black, Asian, and Hispanic women). The number of participants in all studies reviewed exceeded 17,000 of which over 16,000 were women. The ages ranged from 9.51 to 73 with a mean of 22.42. The studies looked at eight variables: bulimia (diagnosed by a clinician), eating disorder (as determined by the researcher), weight and dieting concerns (reported dieting, expressed concern about weight), dietary restraint (restrictive eating), drive for thinness, body dissatisfaction, smaller ideal body, and lower reported weight.

The overwhelming majority of the studies found that eating disturbance and body dissatisfaction were higher in White populations than the non-White populations studied (with small to moderate effect sizes). In the 20 studies that compared Black and White participants, the effect sizes were even higher (meaning that the rates of eating disturbance and body dissatisfaction were much higher in the White participants, and that the differences were significant). Furthermore, the Black women weighed more, but still had less dissatisfaction than the White women (Wildes et al., 2001).

It is also worth noting that within the studies comparing Black and White women, the differences were much more significant with regard to the sub-clinical factors tested, such as dietary restraint, body dissatisfaction, smaller body ideal, and lower reported weight, than for the clinical factors such as bulimia and eating disorders. The authors suggest the possibility that the etiologies of sub-clinical disturbances may differ from clinical disturbances (Wildes et al., 2001). Another finding of this review was a lack of difference between acculturated and non-acculturated women with regard to the factors studied. However, there was not a great deal of research in this area and the methods were not consistent (Wildes et al., 2001). The last significant finding of this analysis was that the differences between Black and White women were much more significant in college samples than in high school or community samples. This contradicts the theory that social status leads to more eating disturbance and body dissatisfaction since more homogeneity in this regard would be expected in college samples than in high school or community samples (Wildes et al., 2001).

More recently, in their meta-analysis of ethnicity and body dissatisfaction, Grabe and Hyde (2006) looked at 98 studies that compared different ethnic groups, including

Asian American, Black, Hispanic, and White women, with regard to body image dissatisfaction. In their study, the only significant difference they found was between White and Black women with White women being more dissatisfied. The effect size for this difference, however, was .29, which is considered a small effect size (for comparison purposes, these authors revealed that the difference in body image dissatisfaction between men and women during the 1990s was .58). It was also noted in this study; however, that Body Mass Index (BMI) was not accounted for due to the small number of studies that utilized and controlled for this measure. Since large studies have shown Black women to have significantly higher BMI's than White women (Franko, Becker, Thomas, & Herzog, 2007; Chao et al., 2008; Wildes et al., 2001), it would stand to reason that if BMI were controlled for, that the difference in body image between Black and White women may be even larger (i.e., Black women may be even less dissatisfied than White women). Such an effect was seen in Gluck and Geliebter's (2002) study such that the discrepancy between ideal and actual body size (one indication of body dissatisfaction that is measured using the Figure Rating Scale) decreased for African Americans after controlling for BMI. Prior to controlling for BMI, there was no significant difference in African American and Caucasian women's body discrepancies; however, after controlling for BMI, the African American women displayed significantly lower body discrepancies than the Caucasian women in the study.

Another recent meta-analysis that examined ethnicity and body dissatisfaction was that performed by Roberts, Cash, Feingold, and Johnson (2006). This meta-analysis, which looked at 88 different effect sizes from 55 studies, differed from the other meta-analyses in that these authors solely focused on Black and White women and only looked

at body image satisfaction (as opposed to eating disorder symptoms, dieting, body investment, etc.). Furthermore, in addition to assessing whether Black women are more satisfied with their bodies than White women, these authors sought to answer several other questions with regard to this difference, including temporal trends, age trends, potential publication bias, and the impact of the type of assessment (weight-related assessments versus global assessments) on this cultural difference (Roberts et al.) Note that these authors defined weight-related measures as those focusing solely on dissatisfaction with weight and shape; whereas global measures were considered more comprehensive in that they evaluate dissatisfaction not only with weight and shape, but also with other items (e.g., hair, skin, facial features).

While Roberts et al.'s (2006) findings suggested that White women are more dissatisfied with their bodies than Black women ($d=.28$) as expected, some of their other findings differed from the authors' hypotheses. For example, it was expected that published articles may show larger differences than unpublished articles, however, no significant difference was found based on publication status. Additionally, since Black women have been found to be dissatisfied with aspects of their bodies other than weight (e.g., hair, facial features, skin color), it was expected that Black women's body dissatisfaction would be higher when assessed using a global versus a weight-related measure (resulting in a smaller ethnic difference); however, no significant differences between weight-related and global body questionnaires were found. Finally, with regard to temporal trends, although the ethnic difference in body dissatisfaction was found to decrease over time when studies using all types of measures were included, this difference actually increased over time when only the global assessments were

considered, suggesting that ethnic differences are complex and may reflect more than just differing attitudes toward weight (Roberts et al.) These authors suggested that psychological factors may be just as important as weight-focused constructs (e.g., internalization of the thin ideal) in understanding ethnic differences body dissatisfaction, and thus should be examined when attempting to tease out the reasons for these differences (Roberts et al.) The current study represents an attempt to look at one such psychological factor, adult attachment, and its role in explaining ethnic differences in body dissatisfaction.

It should also be noted that similar to Wildes et al. (2001), Roberts et al. (2006) found ethnic differences in body dissatisfaction to be greatest during the college years. The authors hypothesize that this trend may stem from either a) a difference in college participation between the two groups, b) differences in body-focus between predominantly White and predominantly Black colleges, or c) a focus on mate-seeking during this period of time which may manifest differently in the two groups due to their perceptions of what men in their culture prefer. More specifically, Molloy and Herzberger (1998) found that African American women perceive that African American men prefer a larger body size, and Thompson, Sargent, and Kemper (1996) found that Black men actually do prefer heavier females than White males do, thus it is possible that mate-seeking highlights body dissatisfaction during this time period more so for White women (who may perceive that potential mates find weight to be important) than for Black women (who may perceive that potential mates find weight to be less important).

Body Dissatisfaction Predictors

Several explanations (e.g., media, parent and peer influences, men's preferences (discussed above)) have been proposed as to why Black females are less dissatisfied with their bodies than White females (Botta, 2000; Nollen et al., 2006; Paxton, Eisenberg, & Neumark-Sztainer, 2006; Thompson & Sargent, 2000). Additionally, in a qualitative study done as part of the Teen Lifestyle Project, Parker et al. (1995) studied body image and weight concerns in African American and White adolescent females and also assessed reasons for the differences between the two groups. For the White participants, the testing included a 45-minute individual interview, focus groups of 4 to 5 adolescents, and a survey questionnaire. The African American teenagers first participated in focus groups and then individuals were selected for individual interview. In addition, two surveys were given to the African American adolescents. The first was the same survey that was given to the White adolescents and the second was created based on the interviews and discussions and used more culturally appropriate language (Parker et al.).

The authors found that 70% of the African American adolescents indicated that they were satisfied with their weight, while 90% of the White adolescents indicated dissatisfaction, and they sought to find the reasons for the differences (Parker et al., 1995). There were three main findings in this regard. These related to differences in perceptions of an ideal girl, competition between females, and the amount of peer discussion that focuses on weight and dieting.

With regard to their ideal girl, White adolescents painted a clear picture of what the ideal girl is: tall, thin, with long flowing hair. They discussed their own inability to achieve this ideal which led to dissatisfaction with their bodies. Furthermore, they

thought that achievement of this ideal was the ticket to popularity and the perfect life. Interestingly, the African American adolescents acknowledged White adolescents' "trying to be perfect." The African American adolescents, however, placed more emphasis on personality and "doing the best with what you've got". Some went so far as to say that they themselves represented an ideal girl. Furthermore, while the White adolescents had a more static picture of beauty, the African American adolescents saw beauty as far more fluid (Parker et al., 1995). With regard to competition among adolescents, the White adolescents discussed intense feelings of envy and even hatred for adolescents that came close to their ideal girl, even if they did not know the girl. The African American adolescents, on the other hand, said that they admired the women who "had it going on" enough so that many of them would go up and compliment a perfect stranger when they saw them (Parker et al., 1995). Finally, regarding discourse focused on weight and dieting, responses from African American and White participants were quite disparate. Whereas White adolescents saw discussions of dissatisfaction and dieting as a way of establishing membership into peer groups, African American adolescents said that that type of talk would turn their friends off (Parker et al., 1995).

The article also included some discussion of where the African American adolescents' attitudes about these issues originated. Positive feedback from family and community was discussed, and in general, the African American adolescents said that they received more positive than negative feedback from their family and friends, and received more compliments for doing the best with what they have than for meeting some preconceived ideal. This is consistent with African American families teaching their

children to look at things as they are rather than how you want them to be (Parker et al., 1995).

The study done by Parker et al. (1995) is important because it illustrates the vast differences in how African American and White adolescent girls view the concept of body image, and sheds some light as to the relational influences these adolescents are exposed to with regard to body image. It suggests that feedback and group acceptance may contribute to the salient difference in body satisfaction between African American and White adolescent girls. As discussed below, these factors may be critical to women with certain attachment styles that make them more influenced by the expectations of others than women with other styles (i.e., styles with anxious attachment).

Attachment

Bowlby and Ainsworth each studied attachment in an attempt to understand parent-child relationships and their impact on personality development (Ainsworth & Bowlby, 1991). Bowlby, who defined attachment behavior as “any behavior that results in a person attaining or retaining proximity to some other differentiated and preferred individual, usually conceived as stronger and/or wiser” (p. 292), identified these proximity seeking behaviors by the infant and the corresponding care giving behaviors of the mother as impacting the way in which the infant viewed both the self and the world. Furthermore, he purported that this view of self and others serves as a guide with regard to perception of and behavior in future relationships (Bowlby, 1969).

According to Ainsworth (1989), by the middle of an infant’s first year, an infant has formed his or her first mental representation of the caregiver. Furthermore, throughout the year he or she organizes the expectations of the caregiver into a model,

and this continues with both parents throughout childhood and adolescence. Bowlby (1969) referred to the cognitive map that provides this picture of the world as the individual's working model, and indicated that this model is relatively stable, but that significant events may lead to changes in this working model. More specifically, he suggested that significant and enduring life events or circumstances bring about changes in working models as the result of accommodation. In other words, when faced with events or circumstances that differ significantly from his or her current working model, individuals may use accommodation to fit the new information rather than assimilating it into their current working models, thus resulting in a change in his or her working model.

From her work with mothers and infants over the first year of life, Ainsworth, using contributions from Bowlby and Stark, identified three types of attachment, securely attached, insecurely attached-avoidant, and insecurely attached-resistant (also termed anxious-ambivalent), each of which reflected facets of the mother's sensitivity to the child's signals, such that secure attachment reflects a supportive environment and insecure attachment reflects a harsh or inconsistent environment (Ainsworth & Bowlby, 1991). Furthermore, Bowlby (1973) identified experiences of loss or the threat of loss and other stressors and crises as events that may lead to an insecure attachment with one or both attachment figures. Ainsworth created a technique called the Strange Situation, in which 12-month-old infants were separated and reunited with their primary caregiver in order to evaluate their behaviors after both separation and reunification with their caregivers (Fraley, 2004). Based on these evaluations, she classified 60% of the children as secure, 20% of the children as anxious-resistant, and 20% of the children as avoidant.

Adult Attachment

More recently, Hazan and Shaver, two social psychologists, carried Bowlby and Ainsworth's ideas into the realm of romantic relationships, and in doing so, structured a theoretical conceptualization of adult attachment (Feeney & Noller, 1996). Hazan and Shaver (1987) conceptualized romantic love as an attachment process based on the idea that romantic attachments are governed by the same dynamics as infant attachments (i.e., adults feel safer in proximity to a supportive partner); that romantic relationship styles can be classified along two dimensions, anxiety (the degree to which a person is concerned that relationship partners may not be available and supportive when needed) and avoidance (the degree to which a person has a desire to limit intimacy); and that individual differences in adult attachment reflect working models based on early experiences with caregivers (Fraley & Shaver, 2000). In their seminal article in which they conceptualize love as an attachment process, Hazan and Shaver (1987) describe the three categories of romantic attachment in terms of how they view love relationships. More specifically, they describe securely attached individuals' view of love as being "characterized by trust, friendship, and positive emotions"; they describe avoidant adults as having a "fear of closeness and lack of trust", and they describe anxious/ambivalent adults as having a "preoccupying, almost painfully exciting struggle to merge with another person" (p. 513).

Adult attachment has emerged as a research area in its own right, and there have been some differences among researchers as to how to best measure and conceptualize this construct (Fraley & Shaver, 2000). Bartholomew and Horowitz (1991) extended Hazan and Shaver's (1987) categories to include four categories of attachment: secure,

preoccupied, dismissing, and fearful (the avoidant category was divided into dismissing and fearful attachment). Additionally, these authors further defined these categories in terms of an individual's view of self and view of others. According to these authors, the secure category represents a positive view of self and positive view of others; the preoccupied category corresponds to a negative view of self and positive view of others; the dismissing category represents a positive view of self and negative view of others; and the fearful category indicates a negative view of self and a negative view of others (Bartholomew & Horowitz).

Over time, additional self-report instruments (e.g., The Relationships Questionnaire; Bartholomew & Horowitz, 1991; Experiences in Close Relationships; Brennan, Clark, & Shaver, 1998) were created to measure adult attachment (Shaver & Fraley, 2004). Using factor analysis, Brennan et al. (1998) found that there appeared to be two dimensions underlying the four categories, anxiety (fear of rejection and reliance on others for esteem) and avoidance (fear of getting close to others and excessive self reliance). Although some researchers continue to utilize categories due to their usefulness in developing theories and assessing individuals' dynamics (Fraley & Shaver, 2000), others (e.g., Brennan et al., 1998; Fraley & Waller, 1998) suggest that using such dimensions maintain research precision that is lost when using the categorical measures (Shaver & Fraley, 2004). Additionally, Fraley and Shaver (2000) argued that utilizing the dimensions of anxiety and avoidance, rather than basing the categories on views of self and other are more conceptually accurate and that the categories constructed using the two dimensions reflect more of emotional and behavioral regulation than individuals' views of self and other. For example, these authors asserted that the preoccupied

category, which Bartholomew and Horowitz (1991) referred to as having a positive view of others, actually displays many traits that are not consistent with having a positive view of others (e.g., jealousy, anger, feeling as if others are not sensitive to their needs; Fraley & Shaver, 2000). Instead, Fraley and Shaver describe attachment in terms of monitoring and regulation. More specifically, they describe differences in attachment styles in terms of how much each style monitors the environment for attachment related threats and the means by which they regulate these threats (e.g., seeking or avoiding contact).

Pietromonaco and Feldman Barrett (2000) provide a complimentary view to that of Fraley and Shaver (2000). These authors also support a dynamic understanding of the four attachment styles based on motivational and behavioral processes, suggesting that different attachment styles lead to greater or lesser activation of attachment systems. For example, they suggest that the attachment system for securely attached individuals would only be activated in times of objective need, the attachment system for individuals with preoccupied and fearful attachment would be hyperactivated since their negative self image causes them to view so many situations as threatening, and the attachment system for individuals with dismissing attachment would be (perhaps defensively) deactivated since they don't want to rely on others (Greenwood & Pietromonaco, 2004). To differentiate between preoccupied and fearfully attached individuals, these authors point to the behavioral means by which each group attends to their heightened activation in that preoccupied individuals may depend excessively on others to cope with their feelings while fearful individuals would be less likely to depend on others for fear of rejection and dependence (Greenwood & Pietromonaco).

Attachment and Body Dissatisfaction

Conceptually, certain attachment styles may lead to higher or lower levels of body dissatisfaction. For example, since women with anxious/preoccupied attachment (those with high levels of anxiety) are theoretically “preoccupied with relationships” and “strive for self-acceptance by gaining the acceptance of valued others” (Bartholomew & Horowitz, 1991, p. 227), it is reasonable to expect that these women may place more emphasis on their physical appearance in order to meet the external standards of beauty set by our society (Eggert, Levendosky, & Klump, 2007; Suldo & Sandberg, 2000), particularly if they deem such attractiveness as being important to potential or current romantic partners or to those from whom they seek acceptance. For those with avoidant attachment styles, who fear or dismiss closeness rather than crave it (Bartholomew & Horowitz), physical attractiveness may matter less. According to Eggert et al., these individuals distancing behaviors may cause them to be less susceptible to external cues with regard to their bodies, and lead them to focus less on physical attractiveness in forming and sustaining relationships. Finally, securely attached women may be less likely to experience negative feelings about their bodies given their more positive views of themselves and their expectations that others will not be rejecting (Troisi et al., 2006).

Several studies have investigated the relationship between adult attachment and body image (Cash, Thériault, & Annis, 2004; Greenwood & Pietromonaco, 2004; Suldo & Sandberg, 2000) in an attempt to see whether certain attachment styles predict body dissatisfaction. Suldo and Sandberg (2000) investigated the relationship between attachment and eating disorder symptoms in 169 undergraduate women (73% Caucasian, 12% African American, 6% Hispanic, and 4% Asian, and 5% Other Ethnic Background)

in a southeastern state university using Bartholomew's Relationship Questionnaire, which utilizes the categorical model of attachment, and the Eating Disorder Inventory-2, which measures Drive for Thinness, Bulimia, and Body Dissatisfaction. These authors suggested that this relationship be explored since eating disorders typically develop in early adolescence and early adulthood, and this time of identity formation and separation from one's parents may be strongly influenced by an individual's internal working model of relationships (i.e., attachment). Furthermore, these authors hypothesized that anxious and fearful attachment would be related to eating disorder symptoms since individuals with these styles have a negative view of self, which is characteristic of eating disorders. They also predicted that the relationship between attachment and eating disorders would be stronger for individuals with a preoccupied style of attachment "given this style's prototypic need to please others" (Suldo & Sandberg, 2000, p. 65). It should be noted that the authors deliberately used the categorical model in order to investigate fearful and dismissing attachment, as little research had been done previously to investigate these particular styles in relation to eating disorder symptoms (Suldo & Sandberg, 2000).

The results of Suldo and Sandberg's study suggest that only preoccupied attachment (negative view of self and positive view of others) significantly predicted drive for thinness and bingeing tendencies (2000). Dismissing attachment (positive view of self and negative view of others) predicted body dissatisfaction in that the more the individuals adhered to that style, the less body dissatisfaction they reported. Interestingly, neither preoccupied attachment nor fearful attachment (both of which hold a negative view of the self) were found to predict body dissatisfaction in this study and fearful attachment was unrelated to any of the eating disorder symptoms, suggesting that having

a positive view of others may be key to the relationship between attachment and eating disorder symptoms (Suldo & Sandberg, 2000). It should be noted, however, that although this study did not find a link between attachment and body dissatisfaction, this may be partially due to their using a potentially problematic form of data analysis. Because the scales on the EDI were not normally distributed and could not be transformed, these authors dichotomized them to make them categorical using the top 15% as the cut-off (this percentage was chosen because it is the clinical cut-off for Drive for Thinness and was generalized to Bulimia and Body Dissatisfaction, which do not have established clinical cut-offs; Suldo and Sandberg). In doing so, all participants that reported 1% to 85% body dissatisfaction were deemed to have exactly the same level of body satisfaction in this study (categorically different from the group having 86% to 100%), thus losing a great deal of predictive power. It is possible that with the additional information that there would, in fact, be a link between these constructs.

In their study of the relationship between attachment, media, and body shame/surveillance, Greenwood and Pietromonaco (2004) also studied the relationship between attachment and body image. These authors attempted to reconcile the relationship between individual differences and environmental variables with regard to their impact on body image. More specifically, these authors posited that individual differences in how people receive environmental messages (e.g., the media's depiction of the thin ideal) may relate to their relational styles (i.e., adult attachment styles) in that the way they view themselves in relation to others (i.e., needing acceptance, fearing intimacy) may shape how they respond to messages they receive from the media. These authors posited that since women with preoccupied attachment styles rely on others for

their sense of security, that not only real others (e.g., peers, parents), but also imagined others (e.g., television characters) may have more impact on these women with regard to their sense of security than women with other attachment styles. Accordingly, they expected that these women would be more drawn to such characters, and given that many of these characters are thin and beautiful, that women who most strongly idealized these characters would display the greatest levels of body image concerns. In their study of 132 college women, these authors found a significant relationship between attachment style and idealization of characters in that preoccupied women identified most strongly with their favorite female television characters. Their second hypothesis that preoccupied attachment would directly relate to body image concerns was only partially supported, however. While preoccupied style (high anxiety, low avoidance) was not directly related to body shame and surveillance, it should be noted that attachment anxiety (the extent a person is concerned that others will not be supportive when needed) was significantly related to these body image constructs in that the more anxiously attached a person was, the more body shame and surveillance they indicated. This suggests that fears of not being supported by others (attachment anxiety) is related to body image, but that having a fear of closeness (i.e., avoidant attachment) may not play as clear a relationship.

Cash, Thériault, and Annis (2004) also investigated the relationship between adult attachment and several components of body image (body image evaluation, body image investment, and body image affect) in 103 men and 125 women at large mid-Atlantic University (58% White, 30% Black, 8% Asian; 2% Hispanic, 2% other). These authors differentiated between what they termed “general adult attachment” (measured using the Relationship Styles Questionnaire, a categorical assessment) and “adult romantic

attachment” (measured using the Experiences in Close Relationship scale, a dimensional assessment), and utilized linear regression to assess the relationships between these attachment variables and the above-mentioned body image constructs. With regard to general attachment (using the categorical model which describes individuals’ relationships with others as secure, preoccupied, fearful, or dismissing), these authors found that secure attachment in women predicted lower body dissatisfaction and less dysfunctional investment (there was no significant relationship between secure attachment and body image affect). Additionally, preoccupied attachment predicted all three body image scales (evaluation, investment, and affect). Fearful attachment and dismissing attachment; however, were each found to be unrelated to any body image variable (Cash et al.)

Using the dimensional scale (which measures individuals’ levels of anxiety and avoidance), these authors found that anxious attachment was significantly related to all three body image scales, and avoidant attachment was only moderately related to body image investment (it was not significantly related to body image evaluation or body image emotions). It should be noted that when all attachment variables (including both categorical and dimensional) were entered into a blockwise regression analysis, anxious romantic attachment arose as the strongest (and sole) predictor of overall body image (a construct in which the three body image indices were combined), explaining 14% of the variability in overall body image (Cash et al., 2004). This is consistent with Greenwood and Pietromonaco’s findings with regard to anxious attachment discussed above (2004).

Finally, in the most recent study to date examining adult attachment and body dissatisfaction, McKinley and Randa (2005) sought to expand on Cash et al. (2004) by

assessing the relationship between adult attachment and body dissatisfaction using a general measure of attachment (the Revised Experiences in Close Relationships scale) and then priming participants for either romantic or close friend relationships prior to administering this assessment a second time (with word changes suggesting either romantic or close friend relationships). When priming was not used, McKinley and Randa's results replicated Cash et al.'s findings with regard to anxious romantic attachment predicting body satisfaction and avoidant romantic attachment showing no relationship to body satisfaction. When priming was used; however, they surprisingly found that this relationship was evident in the close friend condition but not the romantic condition. Given that gender was confounded with relationship type (most romantic partners were male and most close friends were female), it is unclear as to whether this finding relates to the relationship per se or to gender differences (McKinley & Randa, 2005). Additionally, since it is uncertain as to how such priming affects the validity of the attachment measure, it is unclear as to whether the primed measures represent the same construct as the general measure.

In summary, insecure attachment style (particularly preoccupied and anxious attachment) has been found to predict body dissatisfaction, body shame, drive for thinness, and binging tendencies. Although Suldo and Sandberg (2000) did not find a link between attachment and body dissatisfaction per se, it appears that this may be due to their form of data analysis, which may not have provided a good representation of this relationship. Additionally, since these authors utilized categorical rather than dimensional means of assessing adult attachment, it is possible that some of their predictive power was lost in this area as well. It should also be noted that all of these studies used

predominantly Caucasian samples, and none of these studies sought to assess whether this relationship (between attachment and body dissatisfaction) may be different for different ethnic groups. It is possible that there may be differences in the ways different groups attempt to meet their attachment needs and that different groups may place more or less emphasis on physical attractiveness in meeting these needs.

Ethnicity and Attachment

There has been some debate as to whether general attachment is a universal construct or whether it differs among different cultures, possibly due to different emphases on independence and dependence across cultures and/or differing ideas about parenting styles (Wei, Russell, Mallinckrodt, & Zakalik, 2004). Wei et al. extended this debate by studying differences in adult attachment among ethnic/racial groups in the United States, reasoning that if secure attachment, which is typically associated with optimal health and has been studied predominantly in Caucasian samples, is overgeneralized to all ethnic/racial groups when it may not be universally applicable, that this may misconstrue the non-dominant cultural groups (i.e., the implied attributes of this construct may be applied to these groups, when it may not be appropriate to do so). They also noted that very little research has been done in the area of ethnicity and attachment and sought to expand this research area (Wei et al.). In their study of attachment and ethnicity in a sample of male and female college students, these authors sought to assess whether ethnic differences exist in attachment anxiety (“an excessive need for approval from others and fear of interpersonal rejection and abandonment”; p. 409) and attachment avoidance (“an excessive need for self reliance and fear of interpersonal closeness”; p. 409) among four different ethnic groups (African American, Asian American, Hispanic

American, and Caucasian; Wei et al.). Note that since the current study focuses solely on the differences between African Americans and Caucasian Americans, the following discussion will be limited to these groups.

Using structural equation modeling, Wei et al. (2004) first assessed whether attachment avoidance and anxiety represented the same construct across all four groups, and this hypothesis was confirmed. Subsequently, they tested between group differences. Based on their analysis, there was no significant difference in attachment anxiety between African American students and Caucasian students. Additionally, African Americans displayed higher levels of avoidant attachment than did the Caucasian group. It should be noted that these authors hypothesized that African Americans may have scored higher on avoidance because this study was done in a predominantly White college, thus these students may experience more interpersonal distrust than they would have in a more diversified or African American community (Wei et al., 2004). It is also possible that the levels of anxious attachment in the African American group may have been impacted for similar reasons. These authors also suggested that acculturation levels may play a role in levels of attachment anxiety and avoidance in different ethnic groups (Wei et al.) Accordingly, the current study utilized a sample from a more diversified environment and examined the role of ethnic identity in the African American group.

One other study that has examined ethnic differences in adult attachment was that done by Lopez, Melendez, and Rice (2000), who studied parental divorce and attachment in male and female college students using the Adult Attachment Questionnaire. These authors found ethnic differences in avoidant attachment and that Black students indicated higher levels of avoidance than White students. No ethnic differences in anxious

attachment were found. Similar to Wei et al. (2004), this study was done in a primarily White university suggesting the same limitations discussed above. Additionally, the authors of this study noted that the Black respondents in this study had a higher proportion of divorced parents than did their White counterparts, which may have impacted their levels of attachment insecurity (Lopez et al.). Finally, it should be noted that neither of these studies (Wei et al.; Lopez et al.) differentiated between male and female participants with regard to attachment styles. Given that these two groups were combined in both studies, it remains unclear whether different results would be obtained when studying solely female participants.

Ethnicity, Attachment, and Psychological Distress

According to Wei et al. (2004), although much research had been done investigating the link between attachment and various psychological difficulties, no research had been done to investigate whether these relationships may differ for different ethnic groups. Additionally, these authors indicated that the studies that had been done in this area focused primarily on Caucasian samples (Wei et al.). Accordingly, these authors investigated the relationship between attachment and negative mood (depression and anxiety), and whether this relationship was the same across four ethnic groups (African American, Asian American, Hispanic American, and Caucasian). These authors found that attachment anxiety was related to depression in all four groups; however, the strength of the associations between anxious attachment and negative mood differed between the groups, with Asian Americans showing a stronger relationship than Caucasians or African Americans. In contrast, avoidant attachment was only related to negative mood

for Hispanic Americans and Caucasians), and there were no significant differences as to the strength of the relationships.

In this study, I extended this research by investigating the relationship between attachment and body dissatisfaction, particularly as to whether this relationship differs for African American and Caucasian American women. Given that African American women have been found to be more satisfied with their bodies than Caucasian American women (Grabe & Hyde, 2006; Roberts et al., 2006; Wildes et al., 2001) and since anxious attachment has been shown to predict body dissatisfaction (Cash et al., 2004; Greenwood & Pietromonaco, 2004), I expected that such ethnic differences in the relationship between attachment and body dissatisfaction may be present. Additionally, given that ethnic minorities may display higher levels of attachment insecurity in predominantly White universities (Wei et al., 2004), this study utilized participants from colleges with diverse racial/cultural representation, as this may provide a more accurate reflection of attachment traits.

In summary, similar to Wei et al.'s (2004) analyses regarding attachment and depression, I investigated between group differences in an attempt to elucidate the relationship between attachment and body dissatisfaction in Caucasian American and African American women. In addition to examining between group differences, some questions were also raised with regard to within group differences, particularly for the African American women. As discussed below, this study investigated two factors that were expected to impact the relationship between anxious attachment and body dissatisfaction in African American women.

Cultural Factors and Body Dissatisfaction in African American Women

Ethnic identity refers to the extent to which an individual identifies with his or her own cultural group (Dounchis, Hayden, & Wilfley, 2001); and the sociocultural model of physical attractiveness asserts that one's culture plays a large role in how one feels about his or her appearance (Jackson, 2002). According to Jackson, there is considerable agreement in the U.S. as to what is considered attractive and Western culture is strongly influenced by the "thin ideal". Ideas about beauty among African Americans, however, are described as being more fluid and do not adhere to these strict definitions of beauty (Grabe & Hyde, 2006; Parker et al., 1995).

Several authors have discussed potential reasons why African American women may have more fluid ideas about beauty. In her book *Black Feminist Thought*, Patricia Hill Collins (2000) discusses several "controlling images", such as "mammy," "matriarch", and "welfare mother" that have arisen with regard to Black women that paint these women as unfeminine, pushy, and invisible. She suggested that since these images are so negative and denigrating, that these women had almost no choice but to denounce these descriptions and recreate their own ideas about what constituted being a Black woman. Collins also discussed Black women's pain at not being able to "live up to" Western ideals about beauty, which may have promoted more individuality and self-defined beauty for these women, rather than conformity with the dominant American society with regard to what is considered attractive.

In addition to these cultural influences, practicality has also been discussed in the literature as impacting weight-control and body dissatisfaction in African American women. In their study of 36 African American college students, Walcott-McQuigg,

Sullivan, Dan, and Logan (1995) used an ethnoscientific approach to investigate factors influencing weight-control behaviors and body size in African American women. Their findings suggest that the majority of women they interviewed did not place as much importance on weight management due to more pressing concerns, such as child care responsibilities and financial stability. Furthermore, when discussing the advantages of weight management, the women in this study more often cited physical and mental fitness as benefits of engaging in these behaviors as opposed to reaching a preconceived ideal of beauty as may be the case for Caucasian American women (Ofosu, Lafreniere, & Senn, 1998). It should be noted that the African American women in this study also discussed the historical roots of overweight acceptance in their culture and preferences for "rounded" women by African American men (Walcott-McQuigg et al.)

Cultural messages that promote acceptance of a wider range of physical appearances may benefit African American women with regard to appearance satisfaction. Given that the relationship between anxious attachment and body dissatisfaction purportedly relates to a need for acceptance by others (Eggert et al., 2007), it is likely that anxiously attached African American women who identify more with the dominant "thin ideal" culture may place greater emphasis on achieving this ideal, thus leading to body dissatisfaction. Alternatively, the more such women identify with the African American culture, the less likely they may be to look for acceptance in ways related to their appearance. Given these factors, I expected endorsement of the dominant American societal beliefs about attractiveness to play a moderating role between attachment anxiety and body dissatisfaction for African American women. Furthermore, since African American women who identify more with their own ethnic group (rather

than the dominant ethnic/racial group) would be expected to identify less with the “thin ideal” culture, I anticipated that ethnic identity would moderate the relationship between attachment anxiety and body dissatisfaction in African American women as well.

Theoretical Framework

Attachment theory purports that early relationships with caregivers lead to relational styles characterized by attachment security (comfort with closeness with other), attachment avoidance (fear of getting close to others, excessive self-reliance), or attachment anxiety (fear of rejection by others, need for approval; Brennan et al., 1998). Attentiveness of the primary caregivers and subsequent important life events (i.e. loss of a parent) are discussed as precursors to these relational styles (Ainsworth & Bowlby, 1991; Bowlby, 1973). Due to its focus on external validation, anxious attachment has conceptually been linked to body dissatisfaction. More specifically, some authors (Eggert et al.; Suldo and Sandberg) have suggested that reliance on others for approval may lead anxiously attached women to place more emphasis on appearance and meeting external standards of beauty than women with other attachment styles, contributing to dissatisfaction with their appearance. Studies have examined this theory, and Cash et al. found that anxious attachment explained 14% of the variability in body image.

Body dissatisfaction has been theorized as relating to internalization of the thin ideal (Stice, 2002); however, the African American culture has been discussed as having more fluid ideas of beauty (Grabe & Hyde, 2006; Parker et al., 1995) and as placing more focus on pressing concerns, such as childcare and financial stability, rather than on dieting and weight control practices (Walcot-McQuigg et al.). Given these differences, it would stand to reason that Caucasian American women seeking approval would

experience greater body dissatisfaction due to their beliefs that others expect them to have a certain "ideal" appearance, but that African American women with anxious attachment (and conceptually seeking external validation) may not experience such distress this given their culture's greater acceptance of diversity with regard to appearance and its focus on more "pressing" concerns. In other words, it is possible that attachment theory provides a good explanation for why Caucasian American women are unhappy with their bodies, but perhaps it may not be appropriate as an explanatory variable for African American women. The current study examined these ideas and attempted to elucidate cultural differences in the relationship between anxious attachment and body dissatisfaction.

Summary

In summary, based on the literature, African American women are less dissatisfied with their bodies than are Caucasian American women despite having higher overall BMI's, however, the reasons for these differences are still being investigated. Anxious attachment, which is one construct that has been shown to relate to body dissatisfaction, has been found to be similar in these two ethnic groups, thus it is possible that the relationship between attachment and body dissatisfaction may differ for these two groups. Furthermore, little work has been done in the area of ethnicity and attachment, particularly as to whether attachment styles differ across ethnic groups, thus it was hoped that the results of this study would add to this emerging area of research. Finally, since identification with Western standards of beauty have been linked to higher levels of body dissatisfaction, it was suspected that endorsement of dominant American societal beliefs about attractiveness and ethnic identity would each moderate the relationship between

attachment and body dissatisfaction among African American women. Accordingly, the following specific hypotheses were proposed:

1. It was hypothesized that the relationship between BMI and body dissatisfaction would be moderated by ethnicity.
2. It was hypothesized that after controlling for BMI, Caucasian American participants would report higher levels of body dissatisfaction than African American participants.
3. It was hypothesized that anxious attachment would be associated with body dissatisfaction.
4. It was hypothesized that ethnicity would moderate the relationship between anxious attachment and body dissatisfaction.
5. For the African American participants, it was hypothesized that the relationship between anxious attachment and body dissatisfaction would be moderated by endorsement of American societal beliefs about attractiveness.
6. For the African American participants, it was hypothesized that the relationship between anxious attachment and body dissatisfaction would be moderated by ethnic identity.

CHAPTER 3

METHODS

Participants

A power analysis was conducted using the POWER program (Aguinis, 1994), which estimates the statistical power needed to detect a dichotomous moderator variable. Results suggested a minimum sample size of 295. Participants were 233 Caucasian American and 108 African American female college students. In order to reduce within group variability, students who identified as Hispanic, Caribbean Black, or Continental African were excluded from the study. The participants were recruited from four community colleges in Southeast Florida and New York, which were selected primarily due to their high levels of ethnic and racial diversity based on information obtained from StateUniversity.com (2008). The mean age of the participants was 24 years ($SD = 8.14$) and their mean body mass index (BMI) was 24.09 ($SD = 6.14$). Two hundred eighty-three (83%) of the participants identified as never married, 47 (13.8%) identified as married (includes domestic partnerships), and 10 (2.9%) identified as separated or divorced. Information collected regarding parents' marital status indicated that 25 (7.3%) of the participants had never married parents, 196 (57.5%) had married parents, and 118 (34.6%) had separated or divorced parents. One participant did not specify marital status and 2 participants did not specify parents' marital status. Please see Table 1 for participant demographics.

Measures

Demographic Questionnaire

A demographic questionnaire was used to collect participants' personal information such as age, gender, ethnicity, socioeconomic status, marital status, parents' marital status, weight, and height (See Appendix A). Body mass index (BMI) was calculated based on the formula specified by the Centers for Disease Control and Prevention (2011) utilizing the reported height and weight of the participants.

Experiences in Close Relationships

Adult attachment was measured using the Experiences in Close Relationships scale (ECR; Brennan, Clark, & Shaver, 1998). The ECR is a measure of adult romantic attachment that was created using a factor analysis of 323 items from most attachment questionnaires existing at the time the scale was created (Shaver & Fraley, 2004). This scale, which has been used in hundreds of studies (Mikulincer & Shaver, 2007), is a 36-item self-report measure that is designed to assess an individual's levels of anxiety (fear of rejection or abandonment) and avoidance (discomfort with closeness and discomfort with depending on others) in the romantic realm (Shaver & Fraley, 2004). There are 18 questions designed to measure attachment anxiety (e.g., I worry a fair amount about losing my partner) and 18 questions designed to measure attachment avoidance (e.g., I find it difficult to allow myself to depend on romantic partners). Each item is scored on a 7-point scale ranging from strongly disagree to strongly agree based on how they *generally* feel in relationships, not just what is happening in their current relationship. Scale scores are calculated based on the average of the 18 items (after reversing several of the items), with higher scores reflecting higher anxiety or avoidance. Internal

consistencies for the two scales were found to be .94 and .91 for avoidance and anxiety respectively (Brennan et al., 1998), and test-retest coefficients range from .50 and .75 depending on the time span (Mikulincer & Shaver). In the current study, cronbach's alphas were .92 and .90 for avoidance and anxiety, respectively.

Multidimensional Body-Self Relations Questionnaire

Body image was assessed using the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Brown, Cash, & Mikulka, 1990; Cash, 2000). This instrument is a 69-item self-report inventory that evaluates several components of one's overall body image and is commonly used in research related to body image. The MBSRQ consists of 10 subscales that measure evaluation and orientation with regard to appearance, fitness, and health/illness, plus overweight preoccupation, self-classified weight, and body areas satisfaction. Respondents rate their level of agreement with the items on a 5-point Likert scale ranging from definitely disagree to definitely agree. A higher overall score mean indicates greater investment or satisfaction within the specific domains of the subscales.

The MSBRQ subscales most commonly used to assess body dissatisfaction in the literature include the 7-item Appearance Evaluation scale (AE), which measures the global evaluation of one's appearance, and the 9-item Body Areas Satisfaction Scale (BASS), which measures satisfaction with several body sites (e.g., hair, mid torso, height). These subscales, which have demonstrated reliabilities of .91 and .74, respectively (Thompson & Van Den Berg, 2002), were used in the current study. Accordingly, body dissatisfaction in the current study focused more on appearance and overall satisfaction with the body rather than satisfaction related to fitness, weight, or

health/illness. In the current study, cronbach's alphas for the AE and BASS were .87 and .80, respectively.

Beliefs About Attractiveness Scale – Revised

The Beliefs About Attractiveness Scale – Revised (BAAR; Petrie, Rogers, Johnson, & Diehl, 1996) was used to assess participants' endorsement of U.S. societal values concerning attractiveness and beauty. This 19-item instrument includes two factors, Importance of Being Physically Fit (9 items) and Importance of Being Attractive and Thin (10 items). Item examples include: "The more physically fit and in-shape a woman is, the more likely it is that she will have a romantic partner," "Attractive women are more interesting and outgoing than unattractive women," and "The heavier a woman is, the less attractive she is." Respondents indicate their agreement with each statement on a 7-point Likert scale ranging from strongly disagree to strongly agree, and higher scores reflect stronger endorsement of Western standards of beauty. Total scores are obtained by adding all scores and dividing them by the number of scores for each factor or for the overall scale (Petrie et al.). The overall scale, which has shown internal consistencies above .90 (Petrie et al.), was used in the current study. In the current study, cronbach's alpha for the overall scale was .89.

In their examination of construct validity, Petrie et al. found that the individual scales, which displayed internal consistencies ranging from .85 to .90, were each associated with bulimic symptoms, depression, lower self esteem, concern with body size and shape, and dissatisfaction with general appearance and were each unrelated to social desirability or body mass. Additionally, Lester and Petrie (1998) found both scales of the

BAAR to predict depression, lower self-esteem, and less satisfaction with body size and shape in a sample of African American women.

Multigroup Ethnic Identity Measure

Ethnic identity was assessed using the Multigroup Ethnic Identity Measure (MEIM) developed by Phinney (1992). This 15-item instrument measures aspects of ethnic identity that are common to all ethnic groups. According to Phinney (2003), this measure is thought to comprise two factors, ethnic identity search (a developmental and cognitive component) and affirmation, belonging, and commitment (an affective component). Respondents indicate how much they agree or disagree with statements about their ethnic group on a 4-point Likert scale. Item examples include: "I have a lot of pride in my ethnic group," "I am active in organizations and social groups that include mostly members of my own ethnic group," and "I have a strong sense of belonging to my own ethnic group." Total scores are calculated as the mean for the entire measure, and higher scores reflect greater identification with one's ethnic group.

According to Phinney (2003), this measure has shown consistently good reliability (typically above .80) with varied cultural groups. The MEIM has been commonly used to assess ethnic identity in African Americans (Carter et al., 2001) and has been linked to identification with the Black culture and high self esteem in this group (Goodstein & Ponterotto, 1997). In the current study, cronbach's alpha was .87 for the entire sample.

Center for Epidemiologic Studies Depression Scale

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to assess participants' depressive affect in the current study. This commonly

used instrument consists of 20 items, which inquire about current levels of depressive symptoms, emphasizing the affective component. It asks respondents to indicate how often they have experienced particular feelings or symptoms and provides statements concerning different aspects of depressive symptoms. For each statement, respondents indicate whether they have had those feelings or experiences less than one day, one to two days, three to four days, or five to seven days. Items are rated 0, 1, 2, and 3, respectively, and higher scores reflect the presence of more depressive symptoms. Total scores are obtained by adding all scores together (Radloff). The overall scale, which displayed internal consistency of .85 when tested in the general population (Radloff), was used in the current study. In the current study, cronbach's alpha for the overall scale was .88.

Procedures

Participants for this study were recruited from their respective colleges via their professors and were offered a chance to win one of eighteen \$50 Visa gift cards in exchange for their participation. During class time, professors invited their students to participate in this study. Data collection was performed by either the examiner or the professors, who were given explicit instructions with regard to the procedures. Prior to their participation, students were read a recruitment script, which described the topic (body image and relationships) and basic procedures of the study, informed them of the raffle, discussed the voluntary nature of the study, and provided contact information. Either the examiner or the professors distributed the protocols, which consisted of the informed consent, the research questionnaires, and a raffle form. Over 70% of the protocols were administered by the examiner in a classroom setting, and the remainder

were sent home to be completed and returned to the respective professors in sealed envelopes with no identifying information. Participants were extended the opportunity to ask questions related to participation in the study, and to receive results of the study upon its completion. Once the protocols were received, the hard copy data was stored in a locked file cabinet at an off campus site. All study data was input into an electronic file without identifying information.

Note that although all students in each class were asked to participate, only the data collected from African American and Caucasian American women were utilized for this study. The information obtained from other students in these classes will be utilized in future studies regarding ethnicity, attachment, and body dissatisfaction.

CHAPTER 4

RESULTS

Preliminary Analyses

Assumptions

Statistical analyses were performed using SPSS 17.0 (SPSS Inc., Chicago, IL). Preliminary analyses were performed to assess whether the assumptions for multiple regression were met. The skewness and kurtosis values for each dependent variable were examined, and there were no values greater than an absolute value of one, suggesting reasonably normal distributions. Additionally, reliability statistics were calculated for each measure. Internal consistencies of the scales ranged from .80 to .90, suggesting adequate measurement. Descriptive statistics for all variables, including reliability calculations, are presented in Table 2.

Ethnic Differences

One-way analyses of variance (ANOVAs) and chi-square tests were used to assess main effects for ethnic group differences on all variables. Results of these analyses are presented in Table 3. In the current sample, African American women reported significantly higher Body Mass Indexes (BMIs) than Caucasian American Women ($F(1, 332) = 13.53, p < .001, \eta^2 = .04$), and displayed higher levels of body satisfaction as measured by both the Appearance Evaluation scale (AE; $F(1, 337) = 11.55, p = .001, \eta^2 = .03$) and the Body Areas Satisfaction Scale (BASS; $F(1, 339) = 14.30, p < .001, \eta^2 = .04$). Additionally, African American women displayed higher levels of avoidant attachment than Caucasian American women ($F(1, 336) = 9.55, p = .002, \eta^2 = .03$), and

no significant difference was found for anxious attachment between the two ethnic groups ($F(1, 336) = 2.74, p = .099$).

Other findings include significant differences with regard to marital status ($\chi^2(2, N = 340) = 12.113, p = .002$) and parents' marital status ($\chi^2(2, N = 339) = 33.982, p < .001$) between the two groups. Regarding marital status, a higher proportion of Caucasian American women than African American women identified as married (includes domestic partnerships), and higher proportions of African American women than Caucasian American women identified as never married or separated/divorced. With regard to parents' marital status, African American women reported a higher proportion of never married parents than Caucasian American women, while Caucasian American Women reported a higher proportion of married and separated/divorced parents than African American women. Additionally, Caucasian American women displayed significantly higher endorsement of American societal beliefs about attractiveness than African American women ($F(1, 337) = 9.82, p = .002, \eta^2 = .03$), and African American women reported significantly higher identification with their ethnic group ($F(1, 337) = 24.81, p < .001, \eta^2 = .07$) than Caucasian American women. Finally, there was no significant difference found between the two ethnic groups with regard to age ($F(1, 334) = 3.20, p = .075$) or depressive affect ($F(1, 326) = 2.16, p = .143$).

Covariates - Entire Sample

Univariate correlations (see Table 4) and one-way ANOVAs were conducted to assess the relationships between demographic variables and body satisfaction across the entire sample. Among the continuous variables, only age and BMI were significantly correlated with AE ($r = -.129, p = .018$; $r = -.394, p < .001$, respectively) and BASS ($r =$

-.175, $p = .001$; $r = -.299$, $p < .001$, respectively). Accordingly, these variables were retained as covariates in subsequent analyses with the entire sample. No other significant correlations were found.

With regard to the categorical variables, ANOVA results indicated significant between group differences in body satisfaction with regard to marital status and parents' marital status. Marital status had a significant effect on AE ($F(2, 335) = 3.23$, $p = .041$, $\eta^2 = .02$) and BASS ($F(2, 337) = 5.07$, $p = .007$, $\eta^2 = .03$). Post hoc analysis using Tukey's HSD criterion were conducted to assess these between group differences. Results indicated a significant difference between married and never married individuals, with never married individuals (AE: $M = 3.69$, $SD = .80$; BASS: $M = 3.61$, $SD = .66$) reporting greater AE ($p = .033$) and BASS ($p = .009$) than married individuals (AE: $M = 3.37$, $SD = .84$; BASS: $M = 3.31$, $SD = .61$). No other significant differences were found with regard to marital status.

With regard to parents' marital status, results indicated that this variable was also associated with AE ($F(2, 334) = 4.43$, $p = .013$, $\eta^2 = .03$) and BASS ($F(2, 336) = 5.38$, $p = .005$, $\eta^2 = .03$). Post hoc analyses using Tukey's HSD criterion were conducted to assess these between group differences. AE ($p = .021$) and BASS ($p = .032$) were each found to be significantly higher for women with never married parents (AE: $M = 3.98$, $SD = .76$; BASS: $M = 3.77$, $SD = .58$) than women with separated/divorced parents (AE: $M = 3.50$, $SD = .88$; BASS: $M = 3.41$, $SD = .71$); and BASS ($p = .014$) was found to be higher for women with married parents ($M = 3.62$, $SD = .63$) than those with separated/divorced parents (see above). No other significant differences were found with regard to parents' marital status.

Dummy coded variables were created for marital status and parents' marital status. Marital status was modeled as two dummy coded variables for never married (MS - Never Married) and separated/divorced (MS - Separated/Divorced), with married as the reference group. Parents' marital status was modeled as two dummy coded variables for never married (PMS - Never Married) and married (PMS - Married), with separated/divorced as the reference group. These variables, along with age and BMI, were included as covariates in subsequent analyses involving the entire sample.

Covariates - African American Participants

Since two of the hypotheses related to African American participants only, additional univariate correlations (see Table 5) and one-way ANOVAs were conducted to assess the relationships between demographic variables and body satisfaction exclusively for this group. For the African American women, BMI was significantly correlated with AE ($r = -.426, p < .001$) and BASS ($r = -.320, p = .001$), thus this variable was retained as a covariate. There was also a significant between group difference with regard to parents' marital status for BASS ($F(2, 105) = 3.08, p = .05$) and a trend regarding the between group differences in AE ($F(2, 103) = 2.61, p = .078$), thus these variables were also retained as covariates.

Post hoc analyses using Tukey's HSD criterion were conducted to assess between group differences in African American women's body satisfaction related to parents' marital status. BASS ($p = .040$) was found to be significantly higher for African American women with married parents ($M = 3.88, SD = .62$) than those with separated/divorced parents ($M = 3.50, SD = .86$). Additionally, there was a trend ($p = .072$) regarding the difference between women with married parents ($M = 4.00, SD = .69$)

and those with separated/divorced parents ($M = 3.59$, $SD = .99$) for AE. Dummy coded variables for parents' marital status (as discussed previously), along with BMI, were included as covariates in subsequent analyses involving only African American women.

Primary Analyses

1. It was hypothesized that the relationship between BMI and body dissatisfaction would be moderated by ethnicity.

Hierarchical regression was conducted to assess whether the relationship between Body Mass Index (BMI) and body dissatisfaction was moderated by ethnicity. A separate analysis was conducted for each body satisfaction subscale. The continuous variable representing BMI was centered by subtracting the mean for the entire sample. Relevant covariates were added in block one. BMI was added in block two. Ethnicity was entered in block three. The interaction vector representing the interaction between BMI and ethnicity was entered in block four.

a. Ethnicity was expected to moderate the relationship between BMI and body satisfaction as measured by the Appearance Evaluation scale (AE).

Table 6 presents the results of the hierarchical regression analysis for ethnicity as a moderator of the relationship between BMI and AE. The first block of variables (age, marital status, and parents' marital status) produced a significant change in R^2 ($\Delta R^2 = .052$, $F(5, 319) = 3.48$, $p = .004$). Significant changes in R^2 also occurred when BMI was added to the analysis in block two ($\Delta R^2 = .154$, $F(1, 318) = 61.83$, $p < .001$), and when ethnicity was added to the analysis in block three ($\Delta R^2 = .043$, $F(1, 317) = 18.10$, $p < .001$). Finally, when the interaction term was added in block four, results indicated that the incremental portion of variance in AE explained by the interaction between BMI and

ethnicity approached significance ($\Delta R^2 = .009$, $F(1, 316) = 3.73$, $p = .054$). After this variable was entered, the model was significant ($F(8, 316) = 13.72$, $p < .001$), and in the full model, BMI, ethnicity, and the contrasts related to parents' marital status were significant correlates of AE.

b. Ethnicity was expected to moderate the relationship between BMI and body satisfaction as measured by the Body Areas Satisfaction scale (BASS).

Table 7 presents the results of the hierarchical regression analysis for ethnicity as a moderator of the relationship between BMI and BASS. The first block of variables (age, marital status, and parents' marital status) produced a significant change in R^2 ($\Delta R^2 = .065$, $F(5, 320) = 4.47$, $p = .001$). Significant changes in R^2 also occurred when BMI was added to the analysis in block two ($\Delta R^2 = .080$, $F(1, 319) = 29.81$, $p < .001$), and when ethnicity was added to the analysis in block three ($\Delta R^2 = .045$, $F(1, 318) = 17.83$, $p < .001$). When the interaction term was added in block four, the model was significant ($F(8, 317) = 9.65$, $p < .001$), but the interaction between BMI and ethnicity did not explain a significant portion of unique variance in BASS ($\Delta R^2 = .005$, $F(1, 317) = 2.06$, $p = .152$). Contrary to hypothesis, ethnicity did not moderate the relationship between BMI and BASS. In the full model, only BMI, ethnicity, and the contrast between married and separated/divorced parents were significant correlates of BASS.

2. It was hypothesized that after controlling for BMI, Caucasian American participants would report higher levels of body dissatisfaction than African American participants.

One-way ANCOVAs were used to assess whether there was a significant difference in levels of body dissatisfaction between Caucasian American women and

African American women after controlling for BMI. A separate analysis was conducted for each body satisfaction subscale. Results supported the hypothesis that after taking BMI into consideration, African American women reported significantly higher AE ($F(1, 330) = 31.16, p < .001, \eta^2 = .07$) and BASS ($F(1, 331) = 28.33, p < .001, \eta^2 = .07$) than Caucasian American women.

3. It was hypothesized that anxious attachment would be associated with body dissatisfaction.

Hierarchical regression analysis was conducted to assess whether anxious attachment was correlated with body dissatisfaction. A separate analysis was conducted for each body satisfaction subscale. Relevant covariates were added in block one. The continuous variable representing anxious attachment was added in block two.

a. Anxious attachment was expected to be associated with body satisfaction as measured by the Appearance Evaluation scale (AE).

Table 8 presents the results of the hierarchical regression analysis for anxious attachment as a correlate of AE. The first block of variables (age, BMI, marital status, and parents' marital status) produced a significant change in R^2 ($\Delta R^2 = .198, F(6, 316) = 13.03, p < .001$). When anxious attachment was added in block two, it explained a significant portion of unique variance in AE ($\Delta R^2 = .077, F(1, 315) = 33.23, p < .001$), thus supporting the hypothesis that anxious attachment is correlated with body satisfaction. The overall model was significant ($F(7, 315) = 17.05, p < .001$) and accounted for 27.5% of the variability in AE. The significant correlates in this model included BMI, anxious attachment, the contrasts related to marital status, and the contrast between never married and separated/divorced parents.

An additional analysis was conducted to assess whether anxious attachment was correlated with body satisfaction after removing variability in body satisfaction related to general depressive affect. The variable representing depressive affect was included with the other covariates in block one. No other changes were made to the initial regression analysis. Table 8 presents the results of the hierarchical regression analysis for anxious attachment as a correlate of AE, including depressive affect as a covariate. The first block of variables (age, BMI, marital status, parents' marital status, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .289$, $F(7, 304) = 17.63$, $p < .001$). When anxious attachment was added in block two, it explained a significant portion of unique variance in AE ($\Delta R^2 = .020$, $F(1, 303) = 8.57$, $p = .004$), indicating that after removing the variability related to depressive affect, anxious attachment is correlated with AE. The overall model was significant ($F(8, 303) = 16.89$, $p < .001$) and accounted for 30.8% of the variability in AE. The significant correlates in this model included BMI, depressive affect, anxious attachment, the contrasts related to marital status, and the contrast between never married and separated/divorced parents.

b. Anxious attachment was expected to be associated with body satisfaction as measured by the Body Areas Satisfaction Scale (BASS).

Table 9 presents the results of the hierarchical regression analysis for anxious attachment as a correlate of BASS. The first block of variables (age, BMI, marital status, and parents' marital status) produced a significant change in R^2 ($\Delta R^2 = .138$, $F(6, 316) = 8.44$, $p < .001$). When anxious attachment was added in block two, it explained a significant portion of unique variance in BASS ($\Delta R^2 = .102$, $F(1, 315) = 42.08$, $p < .001$), thus supporting the hypothesis that anxious attachment is correlated with body

satisfaction. The overall model was significant ($F(7, 315) = 14.19, p < .001$) and accounted for 24.0% of the variability in BASS. The significant correlates in this model included BMI, anxious attachment, the contrasts related to marital status, and the contrast between never married and separated/divorced parents.

Again, an additional analysis was conducted to assess whether anxious attachment correlated with body satisfaction after removing variability in body satisfaction related to general depressive affect. The variable representing depressive affect was included with the other covariates in block one. No other changes were made to the initial regression analysis. Table 9 presents the results of the hierarchical regression analysis for anxious attachment as a correlate of BASS, including depressive affect as a covariate. The first block of variables (age, BMI, marital status, parents' marital status, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .239, F(7, 304) = 13.65, p < .001$). When anxious attachment was added in block two, it explained a significant portion of unique variance in BASS ($\Delta R^2 = .031, F(1, 303) = 12.93, p < .001$), indicating that after removing the variability related to depressive affect, anxious attachment is correlated with BASS. The overall model was significant ($F(8, 303) = 14.03, p < .001$) and accounted for 27.0% of the variability in BASS. The significant correlates in this model included BMI, depressive affect, anxious attachment, the contrast between never married and married participants, and the contrast between never married and separated/divorced parents.

4. It was hypothesized that ethnicity would moderate the relationship between anxious attachment and body dissatisfaction.

Hierarchical regression analysis was used to assess whether the relationship between anxious attachment and body dissatisfaction was moderated by ethnicity. A separate analysis was conducted for each body satisfaction subscale. The continuous variable representing anxious attachment was centered by subtracting the mean for the entire sample. Relevant covariates, including depressive affect, were added in block one. Anxious attachment was added in block two. Ethnicity was entered in block three. The interaction vector representing the interaction between anxious attachment and ethnicity was entered in block four.

a. Ethnicity was expected to moderate the relationship between anxious attachment and body satisfaction as measured by the Appearance Evaluation scale (AE).

Table 10 presents the results of the hierarchical regression analysis for ethnicity as a moderator of the relationship between anxious attachment and AE. The first block of variables (age, marital status, parents' marital status, BMI, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .289$, $F(7, 304) = 17.63$, $p < .001$). Significant changes in R^2 also occurred when anxious attachment was added to the analysis in block two ($\Delta R^2 = .020$, $F(1, 303) = 8.57$, $p = .004$), and when ethnicity was added to the analysis in block three ($\Delta R^2 = .044$, $F(1, 302) = 20.551$, $p < .001$). When the interaction term was added in block four, the model was significant ($F(10, 301) = 16.45$, $p < .001$), but the interaction between anxious attachment and ethnicity did not explain a significant portion of unique variance in AE ($\Delta R^2 = .001$, $F(1, 301) = 0.45$, $p = .502$). Contrary to hypothesis, ethnicity did not moderate the relationship between anxious

attachment and AE. In the full model, only BMI, depressive affect, ethnicity, and the contrast between never married and married participants were significant correlates of AE.

b. Ethnicity was expected to moderate the relationship between anxious attachment and body satisfaction as measured by the Body Areas Satisfaction Scale (BASS).

Table 11 presents the results of the hierarchical regression analysis for ethnicity as a moderator of the relationship between anxious attachment and BASS. The first block of variables (age, marital status, parents' marital status, BMI, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .239$, $F(7, 304) = 13.65$, $p < .001$). Significant changes in R^2 also occurred when anxious attachment was added to the analysis in block two ($\Delta R^2 = .031$, $F(1, 303) = 12.93$, $p < .001$), and when ethnicity was added to the analysis in block three ($\Delta R^2 = .051$, $F(1, 302) = 22.68$, $p < .001$). When the interaction term was added in step four, the model was significant ($F(10, 301) = 14.30$, $p < .001$), but the interaction between anxious attachment and ethnicity did not explain a significant portion of the unique variance in BASS ($\Delta R^2 = .001$, $F(1, 301) = 0.35$, $p = .553$). Contrary to hypothesis, ethnicity did not moderate the relationship between anxious attachment and BASS. In the full model, BMI, depressive affect, anxious attachment, ethnicity, and the contrast between never married and married participants were significant correlates of BASS.

5. For the African American participants, it was hypothesized that the relationship between anxious attachment and body dissatisfaction would be moderated by endorsement of American societal beliefs about attractiveness.

Hierarchical regression analysis was used to assess whether the relationship between anxious attachment and body dissatisfaction in the African American participants is moderated by endorsement of American societal beliefs about attractiveness. A separate analysis was conducted for each body satisfaction subscale and only African American participants were included in these analyses. The continuous variables representing anxious attachment and beliefs about attractiveness were each centered by subtracting their respective means for the African American participants. Relevant covariates were added in block one. Anxious attachment was added in block two. Beliefs about attractiveness was added in block three. The interaction vector representing the interaction between anxious attachment and beliefs about attractiveness was entered in block four.

a. For the African American participants, endorsement of American societal beliefs about attractiveness was expected to moderate the relationship between anxious attachment and body satisfaction as measured by the Appearance Evaluation scale (AE).

Table 12 presents the results of the hierarchical regression analysis for beliefs about attractiveness as a moderator of the relationship between anxious attachment and AE. The first block of variables (parents' marital status, BMI, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .379$, $F(4, 89) = 13.59$, $p < .001$). Neither the addition of anxious attachment in block two ($\Delta R^2 = .010$, $F(1, 88) = 1.42$, $p = .237$) nor

the addition of the beliefs about attractiveness variable in block three ($\Delta R^2 = .007$, $F(1, 87) = 1.04$, $p = .310$) produced significant changes in R^2 when added to the analysis.

When the interaction term was added in block four, the model was significant ($F(7, 86) = 8.07$, $p < .001$), but the interaction between anxious attachment and beliefs about attractiveness did not explain a significant portion of unique variance in AE ($\Delta R^2 = .000$, $F(1, 86) = 0.02$, $p = .880$). Contrary to hypothesis, for the African American participants, beliefs about attractiveness did not moderate the relationship between anxious attachment and AE. In the full model, only BMI and depressive affect were significant correlates of AE.

b. For the African American participants, endorsement of American societal beliefs about attractiveness was expected to moderate the relationship between anxious attachment and body satisfaction as measured by the Body Areas Satisfaction Scale (BASS).

Table 13 presents the results of the hierarchical regression analysis for beliefs about attractiveness as a moderator of the relationship between anxious attachment and BASS. The first block of variables (parents' marital status, BMI, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .272$, $F(4, 89) = 8.30$, $p < .001$). Neither the addition of anxious attachment in block two ($\Delta R^2 = .007$, $F(1, 88) = .86$, $p = .358$) nor the addition of the beliefs about attractiveness variable in block three ($\Delta R^2 = .014$, $F(1, 87) = 1.70$, $p = .196$) produced significant changes in R^2 when added to the analysis.

When the interaction term was added in block four, the model was significant ($F(7, 86) = 5.14$, $p < .001$), but the interaction between anxious attachment and beliefs about attractiveness did not explain a significant portion of unique variance in BASS ($\Delta R^2 =$

.003, $F(1, 86) = 0.33, p = .568$). Contrary to hypothesis, for the African American participants, beliefs about attractiveness did not moderate the relationship between anxious attachment and BASS. In the full model, only BMI and depressive affect were significant correlates of BASS.

6. For the African American participants, it was hypothesized that the relationship between anxious attachment and body dissatisfaction would be moderated by ethnic identity.

Hierarchical regression analysis was used to assess whether the relationship between anxious attachment and body dissatisfaction in the African American participants was moderated by ethnic identity. A separate analysis was conducted for each body satisfaction subscale, and only African American participants were included in these analyses. The continuous variables representing anxious attachment and ethnic identity were each centered by subtracting their respective means for the African American participants. Relevant covariates were added in block one. Anxious attachment was added in block two. Ethnic identity was added in block three. The interaction vector representing the interaction between anxious attachment and ethnicity was entered in block four.

a. For the African American participants, ethnic identity was expected to moderate the relationship between anxious attachment and body satisfaction as measured by the Appearance Evaluation scale (AE).

Table 14 presents the results of the hierarchical regression analysis for ethnic identity as a moderator of the relationship between anxious attachment and AE. The first block of variables (parents' marital status, BMI, and depressive affect) produced a

significant change in R^2 ($\Delta R^2 = .380, F(4, 89) = 13.61, p < .001$). Neither the addition of anxious attachment in block two ($\Delta R^2 = .013, F(1, 88) = 1.91, p = .170$) nor the addition of ethnic identity in block three ($\Delta R^2 = .015, F(1, 87) = 2.16, p = .145$) produced significant changes in R^2 when added to the analysis. When the interaction term was added in block four, results indicated that the incremental portion of variance in AE explained by the interaction between anxious attachment and ethnic identity approached significance ($\Delta R^2 = .019, F(1, 86) = 2.86, p = .094$). After this variable was entered, the model was significant ($F(7, 86) = 9.14, p < .001$), and in the full model, BMI and depressive affect were significant correlates of AE.

b. For the African American participants, ethnic identity was expected to moderate the relationship between anxious attachment and body satisfaction as measured by the Body Areas Satisfaction scale (BASS).

Table 15 presents the results of the hierarchical regression analysis for ethnic identity as a moderator of the relationship between anxious attachment and body satisfaction as measured by the BASS. The first block of variables (parents' marital status, BMI, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .293, F(4, 89) = 9.23, p < .001$), as did the addition of ethnic identity in block three ($\Delta R^2 = .033, F(1, 87) = 4.42, p = .038$). The anxious attachment variable in block two ($\Delta R^2 = .015, F(1, 88) = 1.85, p = .178$) did not produce a significant change in R^2 when added to the analysis. When the interaction term was added in block four, results indicated that the incremental portion of variance in BASS explained by the interaction between anxious attachment and ethnic identity approached significance ($\Delta R^2 = .027, F(1, 86) = 3.62, p = .060$). After this variable was entered, the model was significant ($F(7, 86) = 7.15, p <$

.001), and in the full model, BMI and depressive affect were significant correlates of BASS.

Post Hoc Analyses

Impact of BMI on Ethnic Differences in Body Dissatisfaction

As discussed above, results of this study indicated that after controlling for BMI, Caucasian American women had significantly more body dissatisfaction than African American women. In order to compare these findings to the meta-analysis conducted by Grabe and Hyde (2006), which reported a small effect size ($d = .29$) with regard to this ethnic difference, I mirrored their data and conducted this analysis without including BMI as a covariate. Results indicated that without including BMI as a covariate, Caucasian American women reported significantly more body dissatisfaction than African American women. The effect sizes for this analysis (AE: $\eta^2 = .03$; BASS: $\eta^2 = .04$) are considered small to medium effect sizes (Clark-Carter, 2004), which is comparable to Grabe and Hyde's findings. As discussed in the literature review, given that African American women report larger BMIs and less body dissatisfaction than Caucasian American women, I expected that the effect sizes for these ethnic differences in body dissatisfaction after controlling for BMI would be larger. Results were consistent with this premise. After controlling for BMI in this study (see Hypothesis 2 above), the effect sizes were $\eta^2 = .07$ and $\eta^2 = .07$, for the AE and BASS, respectively, which exceed medium effect sizes as discussed by Clark-Carter, and are larger effect sizes than those found by Grabe and Hyde and those calculated for this study without controlling for BMI.

Moderation of Anxious Attachment and Body Dissatisfaction by Endorsement of American Societal Beliefs About Attractiveness in Caucasian American Women

As seen in the results above, endorsement of American societal beliefs about attractiveness did not moderate the relationship between anxious attachment and body dissatisfaction for the African American women in this sample. Given that Western standards of beauty have been discussed by some authors as being infeasible and undesirable for African American women (Collins, 2004), I questioned whether this moderation may take place solely for Caucasian American women. I conducted an additional analysis to assess whether the relationship between anxious attachment and body dissatisfaction was moderated by endorsement of American societal beliefs about attractiveness for the Caucasian American women. Hierarchical regression analysis was used to assess this relationship. A separate analysis was conducted for each body satisfaction subscale and only Caucasian American participants were included in these analyses. The continuous variables representing anxious attachment and beliefs about attractiveness were each centered by subtracting their respective means for the Caucasian American participants. Relevant covariates were identified in the Caucasian American sample and were added in block one. Anxious attachment was added in block two. Beliefs about attractiveness was added in block three. The interaction vector representing the interaction between anxious attachment and beliefs about attractiveness was entered in block four.

Table 16 presents the results of the hierarchical regression analysis for beliefs about attractiveness as a moderator of the relationship between anxious attachment and AE. The first block of variables (age, BMI, and depressive affect) produced a significant

change in R^2 ($\Delta R^2 = .270, F(3, 217) = 26.80, p < .001$). Neither the addition of anxious attachment in block two ($\Delta R^2 = .005, F(1, 216) = 1.56, p = .213$) nor the addition of the beliefs about attractiveness variable in block three ($\Delta R^2 = .003, F(1, 215) = 0.96, p = .329$) produced significant changes in R^2 when added to the analysis. When the interaction term was added in block four, results indicated that the incremental portion of variance in AE explained by the interaction between anxious attachment and beliefs about attractiveness was statistically significant ($\Delta R^2 = .014, F(1, 214) = 4.22, p = .041$) and is considered practically significant in accordance with the threshold suggested by Aguinis (2004) of a change in R^2 greater than .01. After this variable was entered, the model was statistically significant ($F(6, 214) = 14.76, p < .001$), and in the full model, BMI, depressive affect, and the interaction term representing anxious attachment by beliefs about attractiveness were significant correlates of AE.

Simple slope equations were constructed to determine the nature of the moderation of anxious attachment and AE by beliefs about attractiveness for the Caucasian American women following the procedure recommended by Preacher, Curran, and Bauer (2006). See Figure 1 for the graphical representation. For Caucasian American women who most strongly endorsed American societal beliefs about attractiveness, the relationship between anxious attachment and AE was significant with a mean difference of .55 ($t = -4.169, p < .001$) between the high and low ends of attachment. For women who least strongly endorsed these beliefs about attractiveness, the relationship between anxious attachment and AE was not significant ($t = -.853, p = .394$). Per review of the simple slopes graph, Caucasian American women indicated more similar (higher) levels of AE at low levels of anxious attachment, however, at high levels of anxious attachment,

the Caucasian American women who most strongly endorsed American societal beliefs about attractiveness reported the lowest AE, followed by those with moderate and low levels of endorsement of these beliefs about attractiveness.

Table 17 presents the results of the hierarchical regression analysis for beliefs about attractiveness as a moderator of the relationship between anxious attachment and BASS. The first block of variables (age, marital status, BMI, and depressive affect) produced a significant change in R^2 ($\Delta R^2 = .253$, $F(5, 214) = 14.51$, $p < .001$) as did the addition of anxious attachment in block two ($\Delta R^2 = .035$, $F(1, 213) = 10.37$, $p = .001$). The beliefs about attractiveness variable in block three did not produce a significant change in R^2 ($\Delta R^2 = .001$, $F(1, 212) = 0.31$, $p = .578$) when added to the analysis. When the interaction term was added in block four, the model was significant ($F(8, 211) = 11.13$, $p < .001$), but the interaction between anxious attachment and beliefs about attractiveness did not explain a significant portion of unique variance in BASS ($\Delta R^2 = .008$, $F(1, 211) = 2.33$, $p = .129$). Therefore, for the Caucasian American participants, beliefs about attractiveness did not moderate the relationship between anxious attachment and BASS. In the full model, only BMI, depressive affect, the contrast between never married and married participants, and anxious attachment were significant correlates of BASS.

CHAPTER 5

DISCUSSION

The purpose of this study was to further explore body dissatisfaction and to better understand the reasons African American women seemingly experience less distress than Caucasian American women, despite having larger body size. Prior to this study, anxious attachment had yet to be investigated as potential explanatory variable for these ethnic differences, despite studies pointing to its salience with regard to body dissatisfaction. Additionally, it was hoped that this dissertation would add to the research by further investigating the relationship between anxious attachment and body dissatisfaction, particularly as to whether the relationship between these constructs differs across ethnic groups. The selection of ethnicities for analysis in this study, African American and Caucasian American, was purposeful given the significant ethnic difference found in past research with regard to body dissatisfaction, and the similar levels of anxious attachment found in these two groups. Furthermore, given research suggesting less of a focus by African American women on reaching the appearance ideals set by American society (Walcott-McQuigg, 1995), it was speculated that African American women who report high levels of anxious attachment (and thus conceptually place importance on acceptance by others) may focus on aspects other than appearance in their attempts for such approval, suggesting a lesser relationship between anxious attachment and body dissatisfaction for African American women than for Caucasian American women.

In addition to exploring between group differences, this study also sought to understand within group differences. More specifically, it sought to examine more fully the relationship between anxious attachment and body dissatisfaction in African

American women. Given that the thin ideal is thought to be a Western cultural phenomenon (Jackson, 2002), it was hypothesized that African American women who more strongly endorsed American societal beliefs about attractiveness and who identified less with their own ethnicity would display a stronger relationship between anxious attachment and body dissatisfaction, and that African American women who endorsed those beliefs to a lesser extent and who identified more with their culture would display a weaker relationship between anxious attachment and body dissatisfaction.

Ethnicity and Body Dissatisfaction

The current study first sought to replicate past results with regard to ethnic differences in body dissatisfaction. Consistent with past findings in three meta-analyses (Grabe & Hyde, 2006; Roberts et al., 2006; Wildes et al., 2001), body dissatisfaction was significantly higher for Caucasian American women than for African American women in this study. Additionally, the current study took this analysis one step further and evaluated this relationship after controlling for body mass index (BMI). The findings in the current study were consistent with Gluck and Geliebter's findings (2002), which indicated a significant ethnic difference in body discrepancy (the difference between ideal and actual body size) between African American and Caucasian women (as measured by the figure rating scale) only after controlling for BMI. In the current study, after controlling for BMI, the ethnic difference in body dissatisfaction between African American and Caucasian American women (as measured by both satisfaction scales) was even more pronounced than it was without controlling for BMI. As discussed previously, this stands to reason given African American women's significantly higher BMI's than Caucasian women (Franko et al., 2007; Chao et al., 2008; Wildes et al., 2001) and

significantly lower body dissatisfaction than Caucasian American women. This finding suggests that ethnic differences may be larger than those reported in the aforementioned meta-analyses, given that BMI was only used sporadically in those studies and thus could not be included in the meta-analyses.

This study also addressed the relationships between BMI, body dissatisfaction, and ethnicity in a different way by evaluating whether ethnicity would moderate the relationship between BMI and body dissatisfaction. In other words, would the relationship between BMI and body dissatisfaction be significantly different for African American and Caucasian American women? There was a trend supporting this hypothesis, and for African American women, increases in BMI did not result in as large an increase in body dissatisfaction as it did for Caucasian American women, suggesting that body size may have a lesser impact on body dissatisfaction for African American women than for Caucasian American women. Additionally, it should be noted that although BMI is significantly correlated with both the Appearance Evaluation scale (AE) and the Body Areas Satisfaction scale (BASS), this relationship is stronger for the AE than the BASS, which is not unexpected given that the AE assesses overall appearance, while the BASS assesses satisfaction with different body parts that may be somewhat less impacted by body size (i.e. face, hair).

Ethnicity and Attachment

Although not a major component of the current study, the results of this study replicated past findings (Lopez et al., 2000; Wei et al., 2004) regarding ethnic differences in anxious attachment and avoidant attachment, such that there was no significant difference between African American women and Caucasian American women with

regard to anxious attachment, and avoidant attachment was significantly higher in African American women than in Caucasian American women. Of note is the fact that the current study utilized participants from ethnically diverse colleges, rather than predominantly White colleges. Wei et al. had posited that the higher levels of avoidant attachment displayed by African Americans in their study may have been due to additional interpersonal distrust related to being in a predominantly White college. Although this may have been the case for those students, my findings suggest a similar pattern in ethnically diverse colleges, suggesting that this ethnic difference may not be due to being in a predominantly White college. Since the current study only utilized women from these ethnic groups; however, additional investigation of this relationship is warranted with regard to these ethnic differences across genders.

Anxious Attachment and Body Dissatisfaction

With regard to the relationship between anxious attachment and body dissatisfaction, this study replicated past findings. Consistent with past research (Cash et al., 2004; Greenwood & Pietromonaco, 2004), anxious attachment was correlated with body dissatisfaction. In this sample, anxious attachment accounted for 7.7% and 10.2% of the additional variability in body dissatisfaction (as measured by the AE and BASS, respectively) after taking into consideration age, marital status, parents' marital status, and BMI (the strongest correlate of body dissatisfaction in this study). Additionally, in an effort to tease out general depressive affect and focus on body-related dissatisfaction, this study sought to assess whether anxious attachment would still correlate with body dissatisfaction after removing the variability in body dissatisfaction relating to depressive affect. Results again supported the relationship between body dissatisfaction and anxious

attachment since anxious attachment correlated with body dissatisfaction above and beyond both the covariates discussed above and general depressive affect.

Moderation of the Relationship between Anxious Attachment and Body Dissatisfaction

As discussed previously, prior to this study, no research had examined whether the relationship between anxious attachment and body dissatisfaction would differ across ethnic groups. Given the fact that several studies have pointed to African American women having less dissatisfaction with their bodies than Caucasian American women, but similar levels of anxious attachment, it was hypothesized that there would be a difference between the two groups in the relationship between anxious attachment and body dissatisfaction. Furthermore, given the focus on individuality and "doing the best with what you've got" in the African American culture, although not hypothesized, it would stand to reason that this relationship would be more apparent in Caucasian American women than African American women given that Caucasian American women who are approval-seeking and fearful of rejection may place more emphasis on attractiveness given the societal pressure to conform to a particular ideal, while African American women with increased need for approval may seek to achieve this approval in ways unrelated to physical appearance, given this ethnic group's more fluid ideas about what is or is not considered attractive.

Interestingly, results did not support this hypothesis, as no significant difference between African American and Caucasian American women was found with regard to the relationship between anxious attachment and body dissatisfaction. Both groups reported less dissatisfaction with their bodies at low levels of anxious attachment and more body

dissatisfaction at higher levels of anxious attachment, suggesting that this relationship variable is salient in predicting body dissatisfaction across these ethnic groups.

There are various potential reasons why the relationship between anxious attachment and body dissatisfaction was not different in the African American group as was expected. One possibility is that African American women who are anxiously attached still look for approval in ways related to their appearance, although not by comparing themselves to the "thin ideal" as has been found for Caucasian American women. Another possibility relates to within group differences. Perhaps the positive feedback and encouragement regarding appearance present in the African American culture (Parker et al., 1995) is not available to all African American women. Perhaps the anxiously attached women from this ethnic group were raised in families and communities where such support and positive messages were not apparent, which may relate to their higher levels of both anxious attachment and body dissatisfaction.

Endorsement of American Societal Beliefs About Attractiveness

Another objective of this study was to further explore the relationship between anxious attachment and body dissatisfaction specifically in African American women in an attempt to better understand this relationship for this group of women. Given that the thin ideal has been associated with the dominant Western culture (Jackson, 2002), it was expected that African American women who more strongly endorsed dominant American societal beliefs about attractiveness would display a stronger relationship between anxious attachment and body dissatisfaction, and that for African American women who did not endorse these beliefs, there would be less of a relationship between anxious attachment and body dissatisfaction (it was posited that appearance would matter less to

this group with regard to getting their attachment needs met). This hypothesis was not supported by the results of this study as no moderation effect was found for the relationship between anxious attachment and body dissatisfaction by endorsement of American societal beliefs about attractiveness. The relationship between anxious attachment and body dissatisfaction for African American women did not significantly differ whether they reported high or lower levels of endorsement of these beliefs.

Given that the Western standards of beauty have been discussed as unrealistic and undesirable for African American women (Collins, 2004), the question arose as to whether moderation of the relationship between anxious attachment and body dissatisfaction by the beliefs about attractiveness variable would only be applicable for Caucasian American women. Although an a priori hypothesis was not proposed regarding the moderation of anxious attachment and body dissatisfaction by beliefs about attractiveness in Caucasian American women, this analysis was performed to further understand the role of such beliefs in the relationship between anxious attachment and body dissatisfaction across ethnic groups. Interestingly, for the relationship between anxious attachment and body dissatisfaction as measured by the Appearance Evaluation scale (AE), results of this analysis were notable and the moderation effect was found to be both a statistically and practically significant, as denoted by an R^2 change above 1% (Aguinis, 2004). Increases in anxious attachment did not significantly impact body dissatisfaction as measured by the AE for Caucasian American women who least strongly endorsed American societal beliefs about attractiveness. For Caucasian American women with high endorsement of these beliefs, higher anxious attachment led to lower body dissatisfaction as measured by the AE. This finding was significant only for the AE and

not the BASS potentially due to the BASS's specific inclusion of non weight-related items that may be impacted less by the internalization of the thin ideal.

Based on these findings, it appears that for Caucasian American women, but not for African American women, *not* endorsing American societal beliefs about attractiveness may play a buffering role for anxiously attached women, as these women did not display higher body dissatisfaction than those with more secure attachment. As discussed above, this moderating relationship was not found for either scale in African American women suggesting that this construct may play a lesser role in the body dissatisfaction of these women.

Ethnic Identity

With regard to the question of whether ethnic identity would moderate the relationship between anxious attachment and body dissatisfaction for African American women, I expected that African American women with strong ethnic identity would exhibit a weaker relationship between anxious attachment and body dissatisfaction. More specifically, I anticipated that ethnic identity would act as somewhat of a protective factor against the "thin ideal", thus pointing to other (non appearance related) ways in which they may potentially meet their attachment needs. Conversely, I expected that those who reported less identification with their ethnic group would display a stronger relationship between anxious attachment and body dissatisfaction.

Although not statistically significant, my results suggested that there were trends ($p < .10$) with regard to the moderation of the relationship between anxious attachment and body dissatisfaction by ethnic identity for the African American participants. In the current study, the moderator variables representing anxious attachment by ethnic identity

accounted for 1.9 % and 2.7% of the variance in AE and BASS, respectively, which is considered practically significant (Aguinis, 2004).

Interestingly, when comparing the relationship between anxious attachment and body dissatisfaction at high versus low ethnic identity, results were not as anticipated. Instead, there was a stronger relationship between anxious attachment and body dissatisfaction for African American women who reported higher levels of ethnic identity, and a lesser relationship for those who identified less with their ethnic group. More specifically, for the African American women who reported less anxious attachment (more positive views of themselves and expectations that others will not be rejecting), those who endorsed strong ethnic identity reported higher body satisfaction than those who did not endorse strong identification with their ethnic group. At higher levels of anxious attachment; however, the positive effect of ethnic identity on body dissatisfaction was not apparent. In fact, as measured by the AE, at high levels of anxious attachment, African American women with strong ethnic identity reported the lowest levels of body satisfaction, as compared to women who identified less with their ethnic group.

One potential explanation for this unexpected trend may relate to the degree of individualism or collectivism embodied by these women. In their study of anxious attachment and contingencies of self worth, Cheng and Kwan (2008) found no relationship between anxious attachment and investment in appearance (the degree to which they rely on appearance for self worth) for men and women who had lived in predominantly individualistic countries, while there was a strong, positive relationship between these constructs for those from more collectivist countries (note that in this study

which was conducted in Hong Kong, authors rated individualism and collectivism based on country of origin and did not differentiate between ethnic groups). These authors discussed the idea that collectivists' place a strong emphasis on connectedness and relationships with others for achieving self worth, and that one way these collectivist individuals may improve relational ties, thus maintaining their sense of security, is via their appearance (Cheng & Kwan).

Although investigation of individualism and collectivism in African Americans has resulted in some mixed findings (Komarraju & Cokley, 2008), most studies to date have suggested that African Americans are higher in collectivism than European Americans (Coon & Kemmelmeier, 2001; Gaines et al., 1997; Komarraju & Cokley). Furthermore, Gaines et al. also found ethnic identity to be significantly and positively related to collectivism and Acevedo (2003) found that ethnic identity mediated the relationship between ethnicity and collectivism. Given these results, it is possible that African American women who more strongly identify with their ethnicity display more collectivist traits, such as interconnectedness and interdependence. Given the findings by Cheng and Kwan (2008) discussed above, it may stand to reason that although for African American women with less anxious attachment (less clinginess and need for approval), ethnic identity may bolster body satisfaction which is consistent with research indicating that ethnic identity indirectly predicts fewer body concerns in African American women (Wood & Petrie, 2010); for those women who report higher levels of anxious attachment (who fear rejection and look for others' approval for their own sense of security), the collectivist traits potentially found in African American women with strong ethnic identity may lead to even more of a focus on appearance and as these

women attempt to foster relational ties and continue group membership and interrelatedness.

Theoretical Considerations

Attachment theory was created to explain relational styles in infants and was subsequently extended to describe romantic relationship styles in adults. Anxious attachment, which represents a fear of rejection and need for approval by others, has been conceptually related to body dissatisfaction by suggesting that the external validation needed for attachment security in anxiously attached individuals leads to increased focus on appearance and related body dissatisfaction. It was expected that this may hold true for Caucasian American women, but not African American women given that body dissatisfaction in Caucasian American culture has been related to a "thin ideal" or external standards of beauty, whereas African American women have been discussed as having more fluid, less stringent ideas regarding attractiveness. Results of this study suggest otherwise. Since higher anxious attachment was related to higher appearance dissatisfaction for both Caucasian American women and African American women, these findings suggest that attachment theory does provide a good framework from which to better understand body dissatisfaction for both ethnic groups.

Study Implications

The results of this study add to the research in several ways. First, the results suggest that past meta-analyses that compared African American and Caucasian American women with regard to body dissatisfaction may have underrepresented the ethnic differences since BMI was not taken into consideration. As such, significant attention should be paid to body mass index when comparing ethnic groups with regard

to body dissatisfaction. Second, in addition to replicating the relationship between anxious attachment and body dissatisfaction found in the literature, these results suggest that this prediction is specifically related to body dissatisfaction, not merely to general negative affect. Third, this study contributed to the emerging area of research regarding attachment and ethnicity by replicating past research in a sample from ethnically diverse colleges (as compared to predominantly White colleges). Finally, this study sheds light as to the relationship between anxious attachment and body dissatisfaction. Although no ethnic differences were found with regard to this relationship, this relationship was moderated by endorsement of American societal beliefs about attractiveness for the Caucasian American women and there was a trend regarding the moderation of this relationship by ethnic identity in African American women, suggesting that there may be different factors at play within each ethnic group regard to the relationship between anxious attachment and body dissatisfaction.

Based on these findings, it appears as if body dissatisfaction in African American women may have less to do with internalized messages regarding Western standards of beauty and more to do with relational factors, such as anxious attachment. Caucasian American women; however, appear more influenced by internalization of the thin ideal. This is important in establishing and conducting preventative efforts with Caucasian American and African American girls and women. While components focusing on societal and media messages may be deemed important for the prevention of body dissatisfaction in Caucasian American girls and women, prevention efforts focusing on these forces may not be as productive for African American girls and women who may not be as influenced by these societal standards.

The results of this study also point to the importance of relationship variables such as anxious attachment in working to reduce body dissatisfaction for *both* Caucasian American and African American women. Despite reporting less body dissatisfaction as a group, anxiously attached African American women reported higher levels of body dissatisfaction countering the idea that all African American women are satisfied with their appearance. Across ethnic groups in this study, anxious attachment was associated with body dissatisfaction over and above body mass index and depressive affect, both robust correlates of body dissatisfaction. Since attachment styles developed early in life are thought to impact later behavior, thought and feeling (Fraley, 2004), this suggests another means by which preventative efforts can be made. By working with parents and dyads to promote more secure attachment relationships, clinicians may directly influence later body dissatisfaction in young women. Furthermore, this also suggests that interventions focused on the therapeutic relationship and developing a more secure attachment style is important for both African American women and Caucasian American women with regard to reducing body dissatisfaction in these groups.

Limitations

This study has several limitations. First, given its cross-sectional design, this study does not permit causal interpretation. Accordingly, all results represent only associations between variables, not cause and effect relationships. For example, although it seems reasonable to believe that attachment styles develop prior to the appearance of body dissatisfaction, it is possible that body dissatisfaction instead brings about anxious attachment. Only via a longitudinal design would it be possible to assess this temporal precedence.

Another limitation of this study relates to its use of self-report measures. Given that these measures only provided one subjective source of data, it is possible that responses may be subject to social desirability and other forms of response bias. Additionally, self-report measures leave the question of the veracity of the responses open.

A third limitation relates to non-equivalence. Because intact groups were used, it is not possible to assess whether these groups differed in any respect other than those constructs that were measured in this study. It is possible that third variables existed that may have contributed to differences between ethnic groups. It should be noted; however, that attempts were made to rule out potential third variables in this study (e.g., BMI).

Finally, although the use of undergraduate participants was purposeful given the fact that the largest ethnic differences in body dissatisfaction have been found during college years, the use of a college sample limits generalizability to the larger populations of African American and Caucasian American women. Additionally, since participants came from colleges with diverse ethnic representation, generalizability to the majority of college students who attend predominantly White institutions may also be limited.

Future Directions

Given the implications and limitations of the current study, several recommendations for future research can be made. First, as discussed above, future studies that measure ethnic differences in body dissatisfaction should consider BMI as a confounding variable. This may help to more accurately reflect ethnic differences regarding body dissatisfaction. Second, with regard to ethnic differences in anxious and avoidant attachment, it is recommended that males be included in future analyses to more

fully replicate past findings (Lopez et al., 2000; Wei et al., 2004) using participants from settings outside predominantly Caucasian universities.

With regard to the relationship between anxious attachment and body dissatisfaction, this study replicated findings that anxious attachment is correlated with body dissatisfaction, even after taking into consideration the variance in body dissatisfaction related to depressive affect. Due to the cross-sectional nature of this study; however, it is not possible to state that anxious attachment actually predicted body dissatisfaction. Since attachment processes are theoretically initiated during early stages in life, it is reasonable that this may be the case; however, it is also possible that body dissatisfaction predicts anxious attachment. Accordingly, it is recommended that future research investigating this relationship utilize longitudinal designs to assess directionality of this relationship.

With regard to ethnic differences in the relationship between anxious attachment and body dissatisfaction, contrary to expectations, this study did not identify a moderation by ethnicity. For both Caucasian American and African American women, higher attachment anxiety was associated with more body dissatisfaction. Additionally, with regard to the within group differences investigated in this study, neither beliefs about attractiveness nor ethnic identity played a significant moderating role of the relationship between anxious attachment and body dissatisfaction for African American women. Since ethnic differences were not found with regard to the relationship between anxious attachment and body dissatisfaction, the lack of significant findings with regard to these two moderating variables for the African American participants is not completely surprising.

Given the current levels of distress across the United States related to body dissatisfaction, it is still important to better understand factors contributing to such disturbance and differences in the ways that various ethnic groups may experience such distress. Although the strength of the relationship between anxious attachment and body dissatisfaction was not found to differ across the two ethnic groups included in this study, results did point to ethnic differences regarding two of the moderating variables (i.e., moderation of the relationship between anxious attachment and body dissatisfaction by beliefs about attractiveness for the Caucasian American women, and the trend regarding the moderation of this relationship by ethnic identity for the African American women) suggesting other potential differences in the relationship between anxious attachment and body dissatisfaction across ethnic groups. This points to several additional recommendations for future research.

First, since it appears that factors influencing the relationship between anxious attachment and body dissatisfaction may be different for African American women than for the majority ethnic group in the United States, it is recommended that other potential moderators and covariates be investigated with regard to the relationship between anxious attachment and body dissatisfaction in African American women. These should include constructs that specifically tap into aspects of the African American culture (e.g., individualism and collectivism), constructs that may tap more directly into the romantic component of the attachment variable (e.g., romantic partners' preferences regarding body size), and constructs that may relate to both anxious attachment and body dissatisfaction (e.g., parental feedback regarding appearance).

Second, as discussed above, although ethnic identity was not found to moderate the relationship between anxious attachment and body dissatisfaction for African American women, there was a trend for this moderation. It is possible that ethnic identity may not impact this relationship in its entirety, but that certain aspects of ethnic/racial identity may be more salient. It is recommended that future work focusing solely on African American women utilize a measure of racial identity, such as the Multidimensional Inventory of Black Identity (Sellers et al., 1997), that may assess the components of racial identity (e.g., public regard) and their impact on the relationship between anxious attachment and body dissatisfaction for African American women. This could help identify whether specific aspects of racial/ethnic identity may contribute to differences in body dissatisfaction at low and high levels of anxious attachment.

Finally, although the choice of ethnic groups was purposive in this study given the significant ethnic differences in body dissatisfaction between Caucasian American and African American women, it is suggested that similar studies be conducted with other ethnic groups to further understand the relationship between anxious attachment and body dissatisfaction. This will not only add to the research regarding the relationship between anxious attachment and body dissatisfaction, but may help to elucidate cultural influences on both of these constructs.

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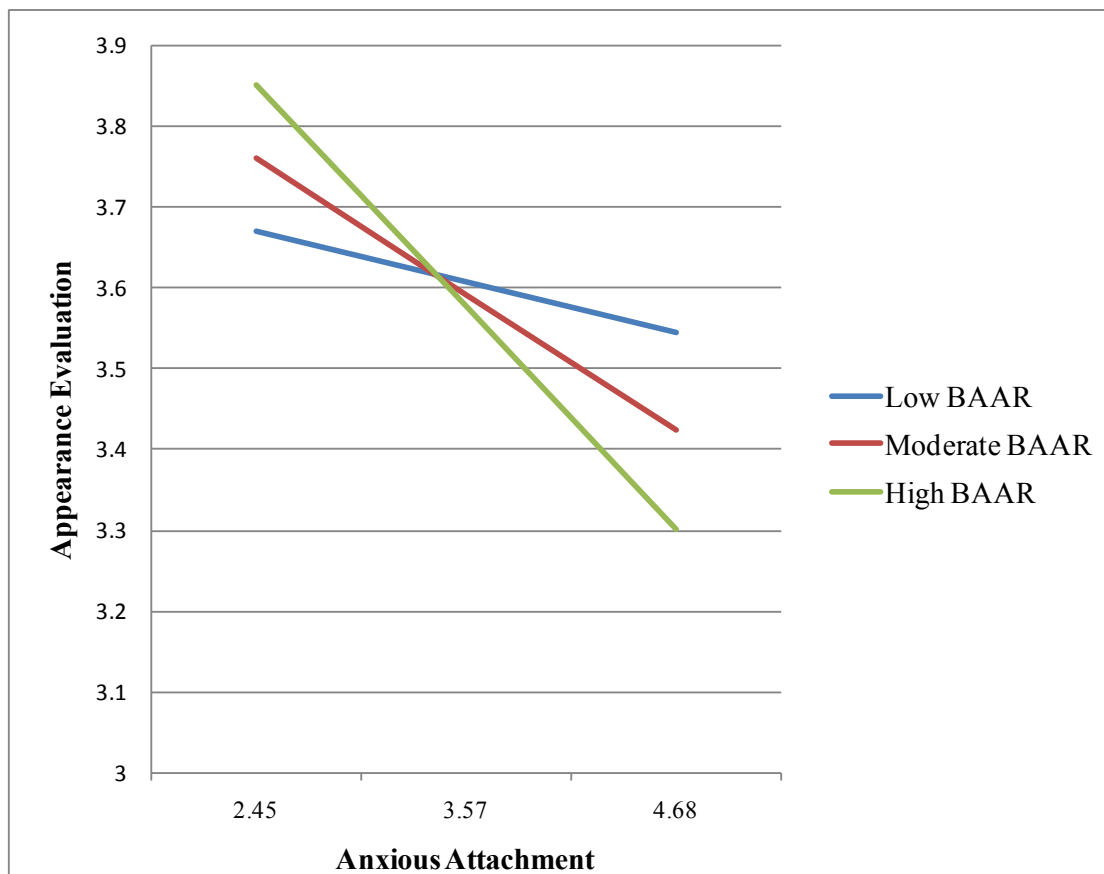
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FIGURES

Figure 1
Simple Slope Graph: Anxious Attachment and AE Moderated by Beliefs About Attractiveness - Caucasian American Participants



BAAR = The Beliefs About Attractiveness Scale - Revised

TABLES

Table 1
Demographic Characteristics of Participants (N=341)

Characteristic	<i>M</i>	<i>SD</i>
Age (years)	23.89	8.14
BMI	24.09	6.14
Characteristic	<i>n</i>	%
Ethnicity		
Caucasian American	233	68.3%
African American	108	31.7%
Marital Status		
Single/Never Married	283	83.0%
Married/Domestic Partnership	47	13.8%
Separated /Divorced	10	2.9%
Not specified	1	0.3%
Parent's Marital Status		
Single/Never Married	25	7.3%
Married/Domestic Partnership	196	57.5%
Separated /Divorced	118	34.6%
Not specified	2	0.6%
BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches) ²] x 703)		

Table 2
Descriptive statistics for Predictor, Moderator, and Outcome Variables

Variable	<i>M</i>	<i>SD</i>	<i>n</i>	<i>Potential Range</i>	<i>Actual Range</i>	<i>Cronbach's Alpha</i>
ECR - Anxious	3.49	1.16	338	1-7	1.11-6.50	0.90
AE	3.65	0.81	339	1-5	1.14-5	0.87
BASS	3.56	0.66	341	1-5	1.33-5	0.80
BAAR	3.43	1.05	339	1-7	1-7	0.89
MEIM	2.86	0.50	339	1-4	1-4	0.87
CESD	15.00	9.81	328	0-60	0-50	0.88

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

AE = Multidimensional Body-Self Relations Questionnaire, Appearance Evaluation Scale

BASS = Multidimensional Body-Self Relations Questionnaire, Body Areas Satisfaction Scale

BAAR = The Beliefs About Attractiveness Scale – Revised

MEIM = Multigroup Ethnic Identity Measure

CESD = Center for Epidemiologic Studies - Depression Scale

Table 3
Ethnic Differences in Demographic Variables, Independent Variables, and Dependent Variables

Variable	Caucasian American	African American	F	χ^2
	(N=233)	(N=108)		
	M (SD) / %	M (SD) / %		
Age	24.43 (8.58)	22.73 (7.01)	3.20	
Marital Status				12.11 **
Single/Never Married	80.3%	88.9%		
Married/Domestic Partnership	17.6%	5.6%		
Separated/Divorced	1.7%	5.6%		
Parent's Marital Status				33.98 ***
Single/Never Married	1.7%	19.4%		
Married/Domestic Partnership	60.1%	51.9%		
Separated/Divorced	37.3%	28.7%		
Income	4.01 (1.52)	2.83 (1.28)	45.76 ***	
BMI	23.28 (5.29)	25.90 (7.42)	13.53 ***	
ECR - Avoidant	2.60 (0.96)	2.99 (1.25)	9.55 **	
ECR - Anxious	3.57 (1.11)	3.34 (1.26)	2.74	
AE	3.55 (0.79)	3.87 (0.83)	11.55 **	
BASS	3.47 (0.62)	3.76 (0.71)	14.30 ***	
BAAR	3.55 (1.01)	3.17 (1.09)	9.82 **	
MEIM	2.78 (0.50)	3.06 (0.45)	24.81 ***	
CESD	14.47 (9.82)	16.20 (9.74)	2.16	

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

ECR - Avoidant = Experiences in Close Relationships, Avoidance Dimension

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

AE = Multidimensional Body-Self Relations Questionnaire, Appearance Evaluation Scale

BASS = Multidimensional Body-Self Relations Questionnaire, Body Areas Satisfaction Scale

BAAR = The Beliefs About Attractiveness Scale – Revised

MEIM = Multigroup Ethnic Identity Measure

CESD = Center for Epidemiologic Studies - Depression Scale

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4
Pearson Correlations for Continuous Predictor, Moderator, and Outcome Variables - Entire Sample

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	--	-.044	.185 **	-.095	.000	-.129 *	-.175 **	.035	-.024	-.077
2. Income		--	-.078	-.124 *	-.079	-.002	.009	.014	-.024	.020
3. BMI			--	-.075	.049	-.394 **	-.299 **	-.049	.102	.087
4. ECR - Avoidant				--	.201 **	-.045	-.067	-.040	-.051	.244 **
5. ECR - Anxious					--	-.293 **	-.344 **	.295 **	-.106	.497 **
6. AE						--	.827 **	-.141 **	.132 *	-.329 **
7. BASS							--	-.151 **	.196 **	-.321 **
8. BAAR								--	-.030	.097
9. MEIM									--	-.122 *
10. CESD										--

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

ECR - Avoidant = Experiences in Close Relationships, Avoidance Dimension

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

AE = Multidimensional Body-Self Relations Questionnaire, Appearance Evaluation Scale

BASS = Multidimensional Body-Self Relations Questionnaire, Body Areas Satisfaction Scale

BAAR = The Beliefs About Attractiveness Scale – Revised

MEIM = Multigroup Ethnic Identity Measure

CESD = Center for Epidemiologic Studies - Depression Scale

* $p < .05$, ** $p < .01$

Table 5
Pearson Correlations for Continuous Predictor, Moderator, and Outcome Variables - African American Participants

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	--	.007	.223 *	.062	.141	-.067	-.159	-.171	-.048	-.008
2. Income		--	.048	-.159	-.141	.123	.059	-.052	.089	-.122
3. BMI			--	-.128	.058	-.426 **	-.320 **	-.038	.063	.015
4. ECR - Avoidant				--	.207 *	-.134	-.150	-.076	-.138	.152
5. ECR - Anxious					--	-.366 **	-.351 **	.287 **	-.189	.529 **
6. AE						--	.825 **	-.162	.159	-.415 **
7. BASS							--	-.151	.222 *	-.352 **
8. BAAR								--	-.160	.191
9. MEIM									--	-.181
10. CESD										--

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

ECR - Avoidant = Experiences in Close Relationships, Avoidance Dimension

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

AE = Multidimensional Body-Self Relations Questionnaire, Appearance Evaluation Scale

BASS = Multidimensional Body-Self Relations Questionnaire, Body Areas Satisfaction Scale

BAAR = The Beliefs About Attractiveness Scale – Revised

MEIM = Multigroup Ethnic Identity Measure

CESD = Center for Epidemiologic Studies - Depression Scale

* $p < .05$, ** $p < .01$

Table 6
Hierarchical Regression Analysis Summary for the Moderation of BMI and AE by Ethnicity

Variable	B	SE	β	R ²	ΔR^2
Block 1				.052	.052 **
Age	-.009	.007	-.082		
MS - Never Married	.233	.158	.105		
MS - Separated/Divorced	.513 §	.310	.097		
PMS - Never Married	.468 **	.178	.153		
PMS - Married	.202 *	.096	.122		
Block 2				.206	.154 ***
Age	.000	.007	.004		
MS - Never Married	.277 §	.145	.125		
MS - Separated/Divorced	.655 *	.285	.124		
PMS - Never Married	.567 **	.164	.185		
PMS - Married	.178 *	.088	.108		
BMI	-.053 ***	.007	-.403		
Block 3				.249	.043 ***
Age	.003	.007	.024		
MS - Never Married	.207	.142	.093		
MS - Separated/Divorced	.493 §	.280	.093		
PMS - Never Married	.340 *	.168	.111		
PMS - Married	.166 §	.086	.100		
BMI	-.060 ***	.007	-.449		
Ethnicity	.405 ***	.095	.229		
Block 4				.258	.009 §
Age	.003	.007	.033		
MS - Never Married	.213	.141	.096		
MS - Separated/Divorced	.516 §	.279	.098		
PMS - Never Married	.338 *	.168	.110		
PMS - Married	.178 *	.086	.108		
BMI	-.072 ***	.009	-.541		
Ethnicity	.390 ***	.095	.221		
Interaction term for BMI and Ethnicity	.026 §	.013	.132		

MS = Marital Status; PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

§ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

$N = 325$

Table 7
Hierarchical Regression Analysis Summary for the Moderation of BMI and BASS by Ethnicity

Variable	B	SE	β	R ²	ΔR^2
Block 1				.065	.065 **
Age	-.007	.006	-.078		
MS - Never Married	.234 §	.127	.130		
MS - Separated/Divorced	.230	.250	.054		
PMS - Never Married	.356 *	.144	.143		
PMS - Married	.229 **	.077	.170		
Block 2				.145	.080 ***
Age	-.001	.006	-.016		
MS - Never Married	.260 *	.122	.145		
MS - Separated/Divorced	.313	.240	.073		
PMS - Never Married	.413 **	.138	.166		
PMS - Married	.214 **	.074	.159		
BMI	-.031 ***	.006	-.290		
Block 3				.191	.045 ***
Age	.000	.006	.005		
MS - Never Married	.201 §	.120	.112		
MS - Separated/Divorced	.177	.236	.041		
PMS - Never Married	.225	.142	.090		
PMS - Married	.202 **	.072	.150		
BMI	-.036 ***	.006	-.336		
Ethnicity	.336 ***	.080	.235		
Block 4				.196	.005
Age	.001	.007	.012		
MS - Never Married	.205 §	.141	.114		
MS - Separated/Divorced	.192	.279	.045		
PMS - Never Married	.223	.168	.089		
PMS - Married	.210 **	.086	.156		
BMI	-.044 ***	.009	-.407		
Ethnicity	.328 ***	.095	.229		
Interaction term for BMI and Ethnicity	.016	.013	.102		

MS = Marital Status; PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

§*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

N = 326

Table 8
Hierarchical Regression Analysis Summary for the Relationship between Anxious Attachment and AE

Variable	B	SE	β	R ²	ΔR^2
<i>Model excluding CESD as a covariate:</i>					
Block 1				.198	.198 ***
Age	.000	.007	.002		
MS - Never Married	.279 §	.144	.128		
MS - Separated/Divorced	.645 *	.283	.124		
PMS - Never Married	.549 **	.163	.181		
PMS - Married	.160 §	.088	.098		
BMI	-.052 ***	.007	-.395		
Block 2				.275	.077 ***
Age	.000	.006	-.007		
MS - Never Married	.330 *	.137	.151		
MS - Separated/Divorced	.836 **	.272	.161		
PMS - Never Married	.422 **	.157	.139		
PMS - Married	.094	.085	.058		
BMI	-.050 ***	.006	-.379		
ECR - Anxious	-.198 ***	.034	-.284		
<i>Model including CESD as a covariate:</i>					
Block 1				.289	.289 ***
Age	.000	.006	-.006		
MS - Never Married	.344 *	.138	.158		
MS - Separated/Divorced	.634 *	.282	.116		
PMS - Never Married	.463 **	.158	.153		
PMS - Married	.100	.084	.061		
BMI	-.049 ***	.007	-.361		
CESD	-.025 ***	.004	-.309		
Block 2				.308	.020 **
Age	.000	.006	-.008		
MS - Never Married	.357 **	.136	.163		
MS - Separated/Divorced	.777 **	.282	.143		
PMS - Never Married	.398 *	.157	.131		
PMS - Married	.070	.084	.043		
BMI	-.049 ***	.007	-.357		
CESD	-.019 ***	.005	-.228		
ECR - Anxious	-.116 **	.040	-.166		
MS = Marital Status; PMS = Parents' Marital Status					
BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches) ²] x 703)					
CESD = Center for Epidemiologic Studies - Depression Scale					
ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension					
§ <i>p</i> < .10, * <i>p</i> < .05, ** <i>p</i> < .01, *** <i>p</i> < .001					
<i>N</i> = 323 (model excluding CESD); <i>N</i> = 312 (model including CESD)					

Table 9
Hierarchical Regression Analysis Summary for the Relationship between Anxious Attachment and BASS

Variable	B	SE	β	R ²	ΔR^2
<i>Model excluding CESD as a covariate:</i>					
Block 1				.138	.138 ***
Age	-.001	.006	-.017		
MS - Never Married	.258 *	.122	.145		
MS - Separated/Divorced	.307	.239	.072		
PMS - Never Married	.405 **	.138	.164		
PMS - Married	.200 **	.074	.150		
BMI	-.030 ***	.006	-.283		
Block 2				.240	.102 ***
Age	-.002	.005	-.027		
MS - Never Married	.306 **	.115	.172		
MS - Separated/Divorced	.486 *	.227	.114		
PMS - Never Married	.286 *	.131	.116		
PMS - Married	.138 §	.071	.103		
BMI	-.028 ***	.005	-.264		
ECR - Anxious	-.186 ***	.029	-.327		
<i>Model including CESD as a covariate:</i>					
Block 1				.239	.239 ***
Age	-.001	.005	-.016		
MS - Never Married	.323 **	.115	.184		
MS - Separated/Divorced	.283	.235	.064		
PMS - Never Married	.366 **	.131	.150		
PMS - Married	.151 *	.070	.114		
BMI	-.030 ***	.006	-.276		
CESD	-.020 ***	.003	-.305		
Block 2				.270	.031 ***
Age	-.002	.005	-.019		
MS - Never Married	.337 **	.113	.191		
MS - Separated/Divorced	.428 §	.234	.098		
PMS - Never Married	.300 *	.130	.123		
PMS - Married	.120 §	.069	.091		
BMI	-.030 ***	.006	-.271		
CESD	-.013 **	.004	-.202		
ECR - Anxious	-.118 ***	.033	-.210		
MS = Marital Status; PMS = Parents' Marital Status					
BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches) ²] x 703)					
CESD = Center for Epidemiologic Studies - Depression Scale					
ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension					
§ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$					
N = 323 (model excluding CESD); N = 312 (model including CESD)					

Table 10

Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and AE by Ethnicity

Variable	B	SE	β	R ²	ΔR^2
Block 1				.289	.289 ***
Age	.000	.006	-.006		
MS - Never Married	.344 *	.138	.158		
MS - Separated/Divorced	.634 *	.282	.116		
PMS - Never Married	.463 **	.158	.153		
PMS - Married	.100	.084	.061		
BMI	-.049 ***	.007	-.361		
CESD	-.025 ***	.004	-.309		
Block 2				.308	.020 **
Age	.000	.006	-.008		
MS - Never Married	.357 **	.136	.163		
MS - Separated/Divorced	.777 **	.282	.143		
PMS - Never Married	.398 *	.157	.131		
PMS - Married	.070	.084	.043		
BMI	-.049 ***	.007	-.357		
CESD	-.019 ***	.005	-.228		
ECR-Anxious	-.116 **	.040	-.166		
Block 3				.352	.044 ***
Age	.001	.006	.010		
MS - Never Married	.287 *	.133	.132		
MS - Separated/Divorced	.534 §	.279	.098		
PMS - Never Married	.175	.160	.058		
PMS - Married	.061	.081	.038		
BMI	-.055 ***	.007	-.405		
CESD	-.022 ***	.004	-.265		
ECR-Anxious	-.087 *	.039	-.124		
Ethnicity	.417 ***	.092	.237		
Block 4				.353	.001
Age	.001	.006	.011		
MS - Never Married	.280 *	.133	.128		
MS - Separated/Divorced	.508 §	.282	.093		
PMS - Never Married	.164	.161	.054		
PMS - Married	.063	.082	.039		
BMI	-.055 ***	.007	-.405		
CESD	-.022 ***	.005	-.266		
ECR - Anxious	-.070	.047	-.100		
Ethnicity	.416 ***	.092	.237		
Interaction term for ECR-Anxious and Ethnicity	-.047	.070	-.040		

MS = Marital Status; PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

CESD = Center for Epidemiologic Studies - Depression Scale

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

§ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ $N = 312$

Table 11
Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and BASS by Ethnicity

Variable	B	SE	β	R ²	ΔR^2
Block 1				.239	.239 ***
Age	-.001	.005	-.016		
MS - Never Married	.323 **	.115	.184		
MS - Separated/Divorced	.283	.235	.064		
PMS - Never Married	.366 **	.131	.150		
PMS - Married	.151 *	.070	.114		
BMI	-.030 ***	.006	-.276		
CESD	-.020 ***	.003	-.305		
Block 2				.270	.031 ***
Age	-.002	.005	-.019		
MS - Never Married	.337 **	.113	.191		
MS - Separated/Divorced	.428 §	.234	.098		
PMS - Never Married	.300 *	.130	.123		
PMS - Married	.120 §	.069	.091		
BMI	-.030 ***	.006	-.271		
CESD	-.013 **	.004	-.202		
ECR-Anxious	-.118 ***	.033	-.210		
Block 3				.321	.051 ***
Age	.000	.005	.001		
MS - Never Married	.276 *	.110	.157		
MS - Separated/Divorced	.218	.230	.050		
PMS - Never Married	.106	.132	.044		
PMS - Married	.112 §	.067	.085		
BMI	-.035 ***	.005	-.322		
CESD	-.016 ***	.004	-.242		
ECR-Anxious	-.093 **	.032	-.164		
Ethnicity	.361 ***	.076	.255		
Block 4				.322	.001
Age	.000	.005	.000		
MS - Never Married	.281 *	.110	.160		
MS - Separated/Divorced	.237	.232	.054		
PMS - Never Married	.115	.133	.047		
PMS - Married	.111	.067	.084		
BMI	-.035 ***	.005	-.322		
CESD	-.016 ***	.004	-.241		
ECR - Anxious	-.105 **	.038	-.186		
Ethnicity	.362 ***	.076	.255		
Interaction term for ECR-Anxious and Ethnicity	.034	.057	.063		

MS = Marital Status; PMS = Parents' Marital Status
 BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)
 CESD = Center for Epidemiologic Studies - Depression Scale
 ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension
 § $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$
 N = 312

Table 12
*Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and AE
 by Beliefs About Attractiveness - African American Participants*

Variable	B	SE	β	R ²	ΔR^2
Block 1				.379	.379 ***
PMS - Never Married	.042	.200	.021		
PMS - Married	.037	.164	.022		
BMI	-.051 ***	.010	-.451		
CESD	-.034 ***	.007	-.409		
Block 2				.389	.010
PMS - Never Married	.014	.201	.007		
PMS - Married	.029	.164	.018		
BMI	-.050 ***	.010	-.444		
CESD	-.029 **	.008	-.347		
ECR - Anxious	-.079	.066	-.119		
Block 3				.396	.007
PMS - Never Married	-.006	.202	-.003		
PMS - Married	.004	.166	.002		
BMI	-.051 ***	.010	-.450		
CESD	-.029 **	.008	-.343		
ECR - Anxious	-.061	.069	-.091		
BAAR	-.069	.067	-.091		
Block 4				.396	.000
PMS - Never Married	-.007	.203	-.004		
PMS - Married	.000	.169	.000		
BMI	-.051 ***	.010	-.450		
CESD	-.028 **	.008	-.340		
ECR - Anxious	-.062	.070	-.093		
BAAR	-.070	.068	-.093		
Interaction: ECR - Anxious by BAAR	-.008	.050	-.013		

PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as $[\text{Weight in pounds} / (\text{Height in inches})^2] \times 703$)

CESD = Center for Epidemiologic Studies - Depression Scale

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

BAAR = The Beliefs About Attractiveness Scale – Revised

$\$p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

$N = 94$

Table 13
*Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and BASS
 by Beliefs About Attractiveness - African American Participants*

Variable	B	SE	β	R ²	ΔR^2
Block 1				.272	.272 ***
PMS - Never Married	.106	.179	.064		
PMS - Married	.130	.147	.097		
BMI	-.036 ***	.009	-.385		
CESD	-.022 **	.006	-.314		
Block 2				.279	.007
PMS - Never Married	.087	.180	.052		
PMS - Married	.125	.147	.093		
BMI	-.035 ***	.009	-.379		
CESD	-.018 *	.007	-.262		
ECR - Anxious	-.055	.060	-.100		
Block 3				.292	.014
PMS - Never Married	.064	.180	.039		
PMS - Married	.096	.148	.071		
BMI	-.036 ***	.009	-.387		
CESD	-.018 *	.007	-.256		
ECR - Anxious	-.034	.061	-.062		
BAAR	-.079	.060	-.127		
Block 4				.295	.003
PMS - Never Married	.070	.181	.043		
PMS - Married	.111	.151	.082		
BMI	-.036 ***	.009	-.387		
CESD	-.018 *	.008	-.268		
ECR - Anxious	-.030	.062	-.054		
BAAR	-.075	.061	-.121		
Interaction: ECR - Anxious by BAAR	.026	.045	.054		

PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as $[\text{Weight in pounds} / (\text{Height in inches})^2] \times 703$)

CESD = Center for Epidemiologic Studies - Depression Scale

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

BAAR = The Beliefs About Attractiveness Scale – Revised

$\$p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

$N = 94$

Table 14
*Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and AE
 by Ethnic Identity - African American Participants*

Variable	B	SE	β	R ²	ΔR^2
Block 1				.380	.380 ***
PMS - Never Married	.087	.203	.043		
PMS - Married	.081	.168	.049		
BMI	-.052 ***	.010	-.450		
CESD	-.035 ***	.007	-.405		
Block 2				.393	.013
PMS - Never Married	.049	.204	.024		
PMS - Married	.061	.168	.037		
BMI	-.052 ***	.010	-.445		
CESD	-.029 **	.008	-.335		
ECR - Anxious	-.096	.069	-.137		
Block 3				.407	.015
PMS - Never Married	.065	.203	.032		
PMS - Married	.083	.167	.050		
BMI	-.052 ***	.010	-.449		
CESD	-.028 **	.008	-.322		
ECR - Anxious	-.083	.070	-.118		
MEIM	.223	.152	.125		
Block 4				.427	.019 §
PMS - Never Married	.055	.201	.027		
PMS - Married	.089	.166	.053		
BMI	-.052 ***	.010	-.449		
CESD	-.027 **	.008	-.310		
ECR - Anxious	-.076	.069	-.109		
MEIM	.205	.151	.115		
Interaction: ECR - Anxious by MEIM	-.225 §	.133	-.140		

PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

CESD = Center for Epidemiologic Studies - Depression Scale

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

MEIM = Multigroup Ethnic Identity Measure

§ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

$N = 94$

Table 15
*Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and BASS
 by Ethnic Identity - African American Participants*

Variable	B	SE	β	R ²	ΔR^2
Block 1				.293	.293 ***
PMS - Never Married	.123	.177	.073		
PMS - Married	.130	.147	.095		
BMI	-.038 ***	.009	-.402		
CESD	-.023 **	.006	-.324		
Block 2				.308	.015
PMS - Never Married	.090	.178	.053		
PMS - Married	.113	.147	.083		
BMI	-.038 ***	.009	-.398		
CESD	-.018 *	.007	-.250		
ECR - Anxious	-.083	.061	-.144		
Block 3				.341	.033 *
PMS - Never Married	.109	.175	.065		
PMS - Married	.140	.145	.102		
BMI	-.039 ***	.009	-.402		
CESD	-.016 *	.007	-.231		
ECR - Anxious	-.066	.060	-.115		
MEIM	.276 *	.131	.188		
Block 4				.368	.027 §
PMS - Never Married	.100	.173	.060		
PMS - Married	.146	.142	.107		
BMI	-.039 ***	.008	-.403		
CESD	-.015 *	.007	-.217		
ECR - Anxious	-.060	.059	-.104		
MEIM	.258 §	.130	.176		
Interaction: ECR - Anxious by MEIM	-.218 §	.114	-.166		

PMS = Parents' Marital Status

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

CESD = Center for Epidemiologic Studies - Depression Scale

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

MEIM = Multigroup Ethnic Identity Measure

§ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

$N = 94$

Table 16
*Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and AE
 by Beliefs About Attractiveness - Caucasian American Participants*

Variable	B	SE	β	R ²	ΔR^2
Block 1				.270	.270 ***
Age	-.007	.005	-.074		
BMI	-.059 ***	.009	-.385		
CESD	-.023 ***	.005	-.289		
Block 2				.276	.005
Age	-.007	.005	-.078		
BMI	-.058 ***	.009	-.381		
CESD	-.020 ***	.005	-.249		
ECR - Anxious	-.058	.046	-.083		
Block 3				.279	.003
Age	-.006	.005	-.070		
BMI	-.059 ***	.009	-.384		
CESD	-.020 ***	.005	-.253		
ECR - Anxious	-.045	.048	-.064		
BAAR	-.046	.047	-.059		
Block 4				.293	.014 *
Age	-.005	.005	-.055		
BMI	-.058 ***	.009	-.382		
CESD	-.019 ***	.005	-.247		
ECR - Anxious	-.040	.048	-.058		
BAAR	-.049	.046	-.064		
Interaction: ECR - Anxious by BAAR	-.079 *	.038	-.120		

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)
 CESD = Center for Epidemiologic Studies - Depression Scale
 ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension
 BAAR = The Beliefs About Attractiveness Scale – Revised
 $\$p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$
 $N = 221$

Table 17
*Hierarchical Regression Analysis Summary for the Moderation of Anxious Attachment and BASS
 by Beliefs About Attractiveness - Caucasian American Participants*

Variable	B	SE	β	R ²	ΔR^2
Block 1				.253	.253 ***
Age	-.001	.005	-.018		
MS - Never Married	.272 *	.118	.176		
MS - Separated/Divorced	.089	.321	.017		
BMI	-.035 ***	.007	-.292		
CESD	-.021 ***	.004	-.339		
Block 2				.288	.035 **
Age	-.002	.005	-.024		
MS - Never Married	.308 **	.116	.200		
MS - Separated/Divorced	.451	.333	.086		
BMI	-.034 ***	.007	-.283		
CESD	-.014 **	.004	-.228		
ECR - Anxious	-.126 **	.039	-.228		
Block 3				.289	.001
Age	-.001	.005	-.018		
MS - Never Married	.313 **	.116	.203		
MS - Separated/Divorced	.463	.335	.088		
BMI	-.034 ***	.007	-.284		
CESD	-.014 **	.004	-.230		
ECR - Anxious	-.120 **	.040	-.218		
BAAR	-.021	.037	-.034		
Block 4				.297	.008
Age	-.001	.005	-.008		
MS - Never Married	.318 **	.116	.206		
MS - Separated/Divorced	.587 §	.343	.111		
BMI	-.034 ***	.007	-.282		
CESD	-.014 **	.004	-.221		
ECR - Anxious	-.122 **	.040	-.222		
BAAR	-.024	.037	-.039		
Interaction: ECR - Anxious by BAAR	-.048	.031	-.092		

PMS = Marital Status

BMI = Body Mass Index (Calculated as [Weight in pounds / (Height in inches)²] x 703)

CESD = Center for Epidemiologic Studies - Depression Scale

ECR - Anxious = Experiences in Close Relationships, Anxiety Dimension

BAAR = The Beliefs About Attractiveness Scale – Revised

§ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

$N = 220$

Appendix A
Brief Demographic Questionnaire

1. Please indicate your age: _____

2. Please indicate your gender:

Man	Woman	Transgender
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. I am participating in this study at:

Queens College	Broward College	Palm Beach State College	Florida International University
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Please indicate your education level:

High School/ GED	Freshman	Sophomore	Junior	Senior	Graduate/ Professional Student
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Please indicate your marital status:

Single/ Never Married	Married/ Domestic Partnership	Separated	Divorced
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate your **parents'** marital status:

Single/ Never Married	Married/ Domestic Partnership	Separated	Divorced
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Please indicate your household income (the house you grew up in):

\$0- 20,000	\$20,000- 40,000	\$40,000- 60,000	\$60,000- 80,000	\$80,000- 100,000	100,000+
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Please indicate the ethnicity you MOST identify with:

- Caucasian, non Hispanic
- African-American
- Continental African (born in Africa)
- Caribbean Black
- Hispanic/Latina/Latino
- Asian/Asian-American/Pacific Islander
- Native-American/Alaska Native
- Asian Indian/Indian-American
- Middle-Eastern/Arab/Arab-American
- Multiracial: please specify _____
- Other: please specify _____

9. Please provide your current height and weight:

Height: _____ feet _____ inches

Weight: _____ pounds

Appendix B

Experiences in Close Relationships Inventory
Brennan, Clark, & Shaver (1998)

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

1	2	3	4	5	6	7
Disagree Strongly			Neutral/ Mixed			Agree Strongly

- _____ 1. I prefer not to show a partner how I feel deep down.
- _____ 2. I worry about being abandoned.
- _____ 3. I am very comfortable being close to romantic partners.
- _____ 4. I worry a lot about my relationships.
- _____ 5. Just when my partner starts to get close to me I find myself pulling away.
- _____ 6. I worry that romantic partners won't care about me as much as I care about them.
- _____ 7. I get uncomfortable when a romantic partner wants to be very close.
- _____ 8. I worry a fair amount about losing my partner.
- _____ 9. I don't feel comfortable opening up to romantic partners.
- _____ 10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
- _____ 11. I want to get close to my partner, but I keep pulling back.
- _____ 12. I often want to merge completely with romantic partners, and this sometimes scares them away.
- _____ 13. I am nervous when partners get too close to me.
- _____ 14. I worry about being alone.
- _____ 15. I feel comfortable sharing my private thoughts and feelings with my partner.
- _____ 16. My desire to be very close sometimes scares people away.
- _____ 17. I try to avoid getting too close to my partner.

continued on the next page

Experiences in Close Relationships Inventory
Brennan, Clark, & Shaver (1998)

	1	2	3	4	5	6	7
	Disagree		Neutral/ Mixed			Agree	
	Strongly					Strongly	
_____	18. I need a lot of reassurance that I am loved by my partner.						
_____	19. I find it relatively easy to get close to my partner.						
_____	20. Sometimes I feel that I force my partners to show more feeling, more commitment.						
_____	21. I find it difficult to allow myself to depend on romantic partners.						
_____	22. I do not often worry about being abandoned.						
_____	23. I prefer not to be too close to romantic partners.						
_____	24. If I can't get my partner to show interest in me, I get upset or angry.						
_____	25. I tell my partner just about everything.						
_____	26. I find that my partner(s) don't want to get as close as I would like.						
_____	27. I usually discuss my problems and concerns with my partner.						
_____	28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.						
_____	29. I feel comfortable depending on romantic partners.						
_____	30. I get frustrated when my partner is not around as much as I would like.						
_____	31. I don't mind asking romantic partners for comfort, advice, or help.						
_____	32. I get frustrated if romantic partners are not available when I need them.						
_____	33. It helps to turn to my romantic partner in times of need.						
_____	34. When romantic partners disapprove of me, I feel really bad about myself.						
_____	35. I turn to my partner for many things, including comfort and reassurance.						
_____	36. I resent it when my partner spends time away from me.						

Appendix C

THE MBSRQ

INSTRUCTIONS--PLEASE READ CAREFULLY

The following pages contain a series of statements about how people might think, feel, or behave. You are asked to indicate the extent to which each statement pertains to you personally.

Your answers to the items in the questionnaire are anonymous, so please do not write your name on any of the materials. In order to complete the questionnaire, read each statement carefully and decide how much it pertains to you personally. Using a scale like the one below, indicate your answer by entering it to the left of the number of the statement.

EXAMPLE:

_____ I am usually in a good mood.

In the blank space, enter a **1** if you **definitely disagree** with the statement;
 enter a **2** if you **mostly disagree**;
 enter a **3** if you **neither agree nor disagree**;
 enter a **4** if you **mostly agree**;
 or enter a **5** if you **definitely agree** with the statement.

There are no right or wrong answers. Just give the answer that is most accurate for you. Remember, your responses are confidential, so please be completely honest and answer all items.

*(Duplication and use of the MBSRQ only by permission of Thomas F. Cash, Ph.D.,
 Department of Psychology, Old Dominion University, Norfolk, VA 23529)*

- _____ 1. Before going out in public, I always notice how I look.
- _____ 2. I am careful to buy clothes that will make me look my best.
- _____ 3. I would pass most physical-fitness tests.
- _____ 4. It is important that I have superior physical strength.
- _____ 5. My body is sexually appealing.
- _____ 6. I am not involved in a regular exercise program.
- _____ 7. I am in control of my health.
- _____ 8. I know a lot about things that affect my physical health.
- _____ 9. I have deliberately developed a healthy lifestyle.
- _____ 10. I constantly worry about being or becoming fat.
- _____ 11. I like my looks just the way they are.
- _____ 12. I check my appearance in a mirror whenever I can.
- _____ 13. Before going out, I usually spend a lot of time getting ready.

- _____ 14. My physical endurance is good.
- _____ 15. Participating in sports is unimportant to me.
- _____ 16. I do not actively do things to keep physically fit.
- _____ 17. My health is a matter of unexpected ups and downs.
- _____ 18. Good health is one of the most important things in my life.
- _____ 19. I don't do anything that I know might threaten my health.
- _____ 20. I am very conscious of even small changes in my weight.
- _____ 21. Most people would consider me good-looking.
- _____ 22. It is important that I always look good.
- _____ 23. I use very few grooming products.
- _____ 24. I easily learn physical skills.
- _____ 25. Being physically fit is not a strong priority in my life.
- _____ 26. I do things to increase my physical strength.
- _____ 27. I am seldom physically ill.
- _____ 28. I take my health for granted.
- _____ 29. I often read books and magazines that pertain to health.
- _____ 30. I like the way I look without my clothes on.
- _____ 31. I am self-conscious if my grooming isn't right.
- _____ 32. I usually wear whatever is handy without caring how it looks.
- _____ 33. I do poorly in physical sports or games.
- _____ 34. I seldom think about my athletic skills.
- _____ 35. I work to improve my physical stamina.
- _____ 36. From day to day, I never know how my body will feel.
- _____ 37. If I am sick, I don't pay much attention to my symptoms.
- _____ 38. I make no special effort to eat a balanced and nutritious diet.
- _____ 39. I like the way my clothes fit me.
- _____ 40. I don't care what people think about my appearance.
- _____ 41. I take special care with my hair grooming.
- _____ 42. I dislike my physique.
- _____ 43. I don't care to improve my abilities in physical activities.
- _____ 44. I try to be physically active.
- _____ 45. I often feel vulnerable to sickness.
- _____ 46. I pay close attention to my body for any signs of illness.
- _____ 47. If I'm coming down with a cold or flu, I just ignore it and go on as usual.
- _____ 48. I am physically unattractive.
- _____ 49. I never think about my appearance.
- _____ 50. I am always trying to improve my physical appearance.
- _____ 51. I am very well coordinated.
- _____ 52. I know a lot about physical fitness.
- _____ 53. I play a sport regularly throughout the year.
- _____ 54. I am a physically healthy person.
- _____ 55. I am very aware of small changes in my physical health.
- _____ 56. At the first sign of illness, I seek medical advice.
- _____ 57. I am on a weight-loss diet.

For the remainder of the items use the response scale given with the item, and enter your answer in the space beside the item.

_____ 58. I have tried to lose weight by fasting or going on crash diets.

- 1 Never
- 2 Rarely
- 3 Sometimes
- 4 Often
- 5 Very Often

_____ 59. I think I am:

- 1 Very Underweight
- 2 Somewhat Underweight
- 3 Normal Weight
- 4 Somewhat Overweight
- 5 Very Overweight

_____ 60. From looking at me, most other people would think I am:

- 1 Very Underweight
- 2 Somewhat Underweight
- 3 Normal Weight
- 4 Somewhat Overweight
- 5 Very Overweight

61-69. Use this 1 to 5 scale to indicate how dissatisfied or satisfied you are with each of the following areas or aspects of your body:

- _____ 61. Face (facial features, complexion)
- _____ 62. Hair (color, thickness, texture)
- _____ 63. Lower torso (buttocks, hips, thighs, legs)
- _____ 64. Mid torso (waist, stomach)
- _____ 65. Upper torso (chest or breasts, shoulders, arms)
- _____ 66. Muscle tone
- _____ 67. Weight
- _____ 68. Height
- _____ 69. Overall appearance

Appendix E

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Please fill in: In terms of ethnic group, I consider myself to be _____

Please indicate how much you agree or disagree with each statement.

- 1. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.**

Strongly agree Agree Disagree Strongly disagree

- 2. I am active in organizations or social groups that include mostly members of my own ethnic group.**

Strongly agree Agree Disagree Strongly disagree

- 3. I have a clear sense of my ethnic background and what it means for me.**

Strongly agree Agree Disagree Strongly disagree

- 4. I think a lot about how my life will be affected by my ethnic group membership.**

Strongly agree Agree Disagree Strongly disagree

- 5. I am happy that I am a member of the group I belong to.**

Strongly agree Agree Disagree Strongly disagree

- 6. I have a strong sense of belonging to my own ethnic group.**

Strongly agree Agree Disagree Strongly disagree

7. **I understand pretty well what my ethnic group membership means to me.**

Strongly agree Agree Disagree Strongly disagree

8. **In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.**

Strongly agree Agree Disagree Strongly disagree

9. **I have a lot of pride in my ethnic group.**

Strongly agree Agree Disagree Strongly disagree

10. **I participate in cultural practices of my own group, such as special food, music, or customs.**

Strongly agree Agree Disagree Strongly disagree

11. **I feel a strong attachment towards my own ethnic group.**

Strongly agree Agree Disagree Strongly disagree

12. **I feel good about my cultural or ethnic background.**

Strongly agree Agree Disagree Strongly disagree

_____ 13 **My ethnicity is**

(1) **Asian or Asian American, including Chinese, Japanese, and others**

(2) **Black or African American**

(3) **Hispanic or Latino, including Mexican American, Central American, and others**

(4) **White, Caucasian, Anglo, European American; not Hispanic**

(5) **American Indian/Native American**

(6) **Mixed; Parents are from two different groups**

(7) **Other (write in):** _____

_____ 14. **My father's ethnicity is (use numbers above)**

_____ 15. **My mother's ethnicity is (use numbers above)**

Appendix F

Center for Epidemiologic Studies Depression Scale (CES-D), NIMH

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

During the Past Week

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	Most or all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I did not feel like eating; my appetite was poor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I felt that I could not shake off the blues even with help from my family or friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I felt I was just as good as other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I had trouble keeping my mind on what I was doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I felt depressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I felt that everything I did was an effort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I felt hopeful about the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I thought my life had been a failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I felt fearful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. My sleep was restless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I was happy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I talked less than usual.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I felt lonely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. People were unfriendly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I enjoyed life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I had crying spells.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I felt sad.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I felt that people dislike me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I could not get "going."	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SCORING: zero for answers in the first column, 1 for answers in the second column, 2 for answers in the third column, 3 for answers in the fourth column. The scoring of positive items is reversed. Possible range of scores is zero to 60, with the higher scores indicating the presence of more symptomatology.

