Body Image and Disordered Eating Patterns in African-American College Women

Amazing Grace Lois Danso

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Brianne Friberg, Ph.D.
Thesis Chair

_____

Janet Brown, Ph.D.
Committee Member

_____

Yaw Adu-Gyamfi, Ph.D.
Committee Member

_____

Marilyn Gadomski, Ph.D.
Assistant Honors Director

_____

Date

Abstract

Currently, increasing scholarly attention is being given to eating disorders such as anorexia nervosa, bulimia, and binge eating. A bulk of the research on the issue has focused on Caucasian women. As a result, the body of research may be limited in its generalization to other racial and ethnic groups. This study, therefore, sought to study disordered eating among African-American college women. Two models based on research questions were tested. The first focused on how body mass index (BMI) impacted disordered eating, while the second focused on how the difference between perceived actual and ideal body image impacted disordered eating. Self-esteem was tested as a mediating factor for both models. Data were collected from a total sample of 21 African-American women from a large, private university on the east coast. Findings suggested that African-American college women had high self-esteem and a perceived actual and ideal body image that were similar. Results also demonstrated a low prevalence of eating disorders among this population, even though more than half of participants demonstrated a potential risk for developing an eating disorder. These findings have implications for counseling and student care centers by shedding light on typical attitudes about body image within this demographic and the eating behaviors that follow as a result.

Body Image and Disordered Eating Patterns in African-American College Women

Women's dissatisfaction with their bodies or physical appearance can be largely attributed to the dictates of social comparison theory (Dijkstra, Gibbons, & Buunk, 2010, p. 195) and sociocultural theory (Morrison, Kalin, & Morrison, 2004). Both theories have been proposed as probable explanations for body image issues and the prevalence of eating disorders among women. Research findings suggest that sociocultural factors and the engagement in social comparison appraisals account for disordered eating trends among women, although this observation is not predominantly seen among African-American women due to different cultural values and preferences of this demographic (Granberg, Simons, & Simons, 2009) and a general positive body image (Franko & Roehrig, 2011 p. 221). Self-esteem has also been theorized as a probable explanation for this observation among African-American women (Harrington, Crowther, & Shipherd, 2010).

Social Comparison Theory

Social comparison theory asserts that individuals compare themselves with others on various dimensions (Dijkstra et al., 2010; Myers, Ridolfi, Crowther, & Ciesla, 2012), including appearance to enhance or protect their self-esteem and to improve their abilities. According to Festinger (1954), people also engage in social comparison to evaluate themselves on a subjective basis due to a lack of a clear objective basis of self-evaluation. Thus, the three appraisals of social comparison theory include self-enhancement, self-evaluation, and self-improvement (Krayer, Ingledew, & Iphofen, 2008).

According to Krayer et al. (2008), people engage in self-evaluative comparisons for the sake of obtaining information on their position as it relates to others on concerns such as skills, attributes, and societal expectations. Such comparison is obtained from people who are similar to the individual engaging in the comparison. Individuals participate in self-improvement comparisons with the goal of learning to improve a specific characteristic about themselves-like appearance-as well as use it as a technique for problem solving. Suls and Wheeler (2000) argued that people, therefore, compare themselves with those they consider better than themselves when undergoing this appraisal.

Krayer et al. (2008) distinguished self-improvement from self-enhancement by defining self-enhancement comparisons as appraisals whereby individuals can gain and sustain generally positive views about themselves. Achieving this feat is typically done by discrediting unfavorable information as unconnected to the self and communicating to others about their inferiority on specific traits on which the individual considers himself/herself superior. The aim of this appraisal is to boost a sense of self-worth and self-esteem in people. Thus, Taylor and Lobel (1989) assert that people participating in this appraisal generally compare themselves downward to others that they consider as worse off or inferior to themselves.

Dijkstra et al. (2010) suggest that engaging in social comparison can lead to body dissatisfaction in individuals and can range from no dissatisfaction to extreme dissatisfaction. Nevertheless, a majority of people experience moderate dissatisfaction with their bodies. Moderate dissatisfaction can be viewed as healthy and beneficial when it inspires individuals to adopt healthy habits such as eating right and staying active and

fit through exercise. However, Thompson et al. (2002) caution against the negative and harmful consequences of high or extreme body dissatisfaction due to social comparison. These negative consequences can be manifested in the form of clinical psychological problems such as body dysmorphic disorder (BDD). Additionally, Dijkstra et al. state that high and extreme body dissatisfaction as a result of social comparison tends to be a strong indicator or predictor of eating disorders among individuals. Such predictions are often linked to women of all ethnic backgrounds.

Social Comparison on Body Image and Dissatisfaction among African-American Women

On the issue of body image and social comparison, results of research studies suggest that social comparison based on physical appearance contributes to body image disturbances in women (Fisher, Dunn, & Thompson, 2002). It was discovered that women who are exposed to attractive images only tend to have a body image rating that indicates a distortion or is lower than women who are exposed to images of attractive models and female models who are societally considered unattractive. They also tend to have a higher rate of body dissatisfaction as a result. Hesse-Biber, Leavy, Quinn, and Zoino (2006) found that women are encouraged to engage in social comparison with regard to their bodies by pressures from media and significant others.

Such comparisons encourage women in the western world, particularly the United States, to compare themselves with other women to a presumed established ideal body image of American females. This ideal Eurocentric body image is heavily promoted in the mainstream American media and includes being thin, tall, and having big breasts[1],

[1] While this may be the standard favored in the United States, other models of beauty exist in other nations where different body images are valued as the preference (Wipper, 1972). Some of these models

according to Tylka and Sabik (2010). As stated by Lennon, Lillethun, and Buckland (1999), there is a growing trend among college women of comparing themselves with the ideal body images promoted in mainstream media advertisements. This standard of comparison results in a highly elevated and usually unrealistic sense of women's personal standard of attractiveness due to a desire to live up to mainstream media expectations. Hence, an increased dissatisfaction with their body follows in this trend as a result of incongruences between their body image and the mainstream media ideal.

In spite of this body image and dissatisfaction problem present in general female populations, Franko and Roehrig (2011 p. 221) have discovered that even though African-American women typically have a fuller figure in comparison to their Caucasian counterparts, they tend to have a more positive body image and higher body satisfaction due to cultural preferences. Breitkopf, Littleton, and Berenson (2007) also attribute this more positive body image and higher body satisfaction to the limited focus African-American women place on social comparison. Rather than compare themselves to others, Breitkopf et al. claim African-American women give more attention to factors that affect their self-presentation, such as the way they dress and groom themselves. Abrams, Allen, and Gray (1993) further postulate that African-American women's limited involvement in social comparison in relation to their weight stems from a different view of weight. African American women tend to rate an overweight or obese weight status as normal and acceptable. Thus, since they may consider such weight status as normal, acceptable,

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demonstrate a preference for a fuller figure rather than a thinner figure as the accepted and desirable standard. Some women from different nationalities represented in the United States such as African, Asian, and Latin American nations, subscribe to these other body image ideals as opposed to the generally preferred Eurocentric standard (Bjerke & Polegato, 2006).

even beautiful, they often have higher body satisfaction than Caucasian women and avoid measures like dieting and other weight loss techniques aimed at altering their body figure.

When African-American women engage in social comparison in relation to appearance, they usually compare themselves with women who are fuller-figured and more curvaceous than themselves as the standard for having a healthy body image because they find a fuller figure more attractive (Reddy et al., 2011; Stephens & Few, 2007). Hence, as outlined by Krayer et al. (2008), African-American women engage in the social comparison appraisal of self-improvement when it comes to weight and body image which entails having a curvaceous figure. Reddy et al. give support to this idea in a study they conducted, assessing body dissatisfaction in African-American women with sickle-cell disease. Reddy et al. discovered that African-American women who were thinner as a result of the disease often compared themselves to women who were fuller-figured and more curvaceous than themselves. They also had a desire to attain the weight status of the curvaceous women. Hence, they typically engaged in eating behaviors such as binge-eating in order to increase in weight and body satisfaction.[2]

Beyond the contributions of social comparison theory in helping to understand body image and body dissatisfaction in African-American women, another theory increases understanding on the issue. Sociocultural theory helps expand the understanding gained from the foundation laid by social comparison theory (Morrison et al., 2004).

[2] This desire to have a fuller-figure contrary to the Eurocentric norm brings into question the criteria outlined for having an eating disorder in the United States and whether such criteria ought to differ based on cultural preference and approaches to eating and weight.

Sociocultural Theory on Body Image and Dissatisfaction among African-American Women

Sociocultural theory as it relates to body image and dissatisfaction encompasses sociocultural pressures to assimilate and conform to a standardized ideal of beauty according to Dittmar (2005). Morrison et al. (2004) explain that sociocultural theory accounts for poor body image and body dissatisfaction in women of all ethnicities via two main ways. These include demonstrating that a thin ideal of beauty is heavily promoted in Western societies and that women have a penchant for viewing their bodies as objects.

Additionally, Morrison et al. (2004) assert that women tend to adopt the assumption that being thin is good for the sake of the presumed benefits and opportunities being thin in western society award women, such as greater employment opportunities and an improved social standing among others (Lennon et al., 1999). As one of the widely accepted explanations of poor body image and body dissatisfaction among women, sociocultural theory also postulates that the standard thin ideal of beauty for all women is highly unrealistic, especially since the vast majority of women, particularly African-American women, do not live up to these standards (Halliwell & Harvey, 2006).

As previously discussed, in a diverse American culture, mainstream standards of beauty are promoted which in some instances, conflict with the perceptions of beauty held within different cultural subgroups in America (Fears, 1998). The mainstream culture seemingly favors a standard of beauty predominantly associated with Caucasian women, characterized by a slender body figure in comparison to African-Americans. Hence, an internal conflict arises within subgroups such as African-American women

when the mainstream standards are adopted in favor of traditional ethnic perceptions of beauty (Gordon, Castro, Sitnikov, & Holm-Denoma, 2010).

According to Cashel, Cunningham, Landeros, Cokley, and Muhammad (2003), sociocultural variables that often predict poor body image and body dissatisfaction among women include beauty ideals promoted in mainstream media and accepted societal attitudes towards what is considered desirable and beautiful. Mazur (1986) theorizes that media factors contributing to body dissatisfaction are heightened in the advertising and entertainment industries.

Body dissatisfaction in African-American women, aided by ideals portrayed in the mainstream media, facilitates problems of disordered eating among this group. A correlation has been found between exposure to television commercials that feature slim bodied women and an increased restriction of diet in women who are highly restrained eaters in the western world (Anschutz, Van Strien, & Engels, 2008). This finding largely applies to those who typically did not have overeating tendencies and were already on the stricter side of restrained eating. While exposure to television ads that feature slim bodied women does not cause restrained eating or abnormal eating behavior such as anorexia nervosa and bulimia nervosa, it promotes the behavior by affirming the pressure women with eating disorders feel to be thin. Body dissatisfaction in women, as previously discussed by Tylka and Sabik (2010), also promotes frequent social comparison to other women. These comparisons are pervasive to the extent that the women who engage in them tend to project a perception of thinness to non-living objects such as bottles. In essence, they regard non-living objects strictly in terms of thinness or fatness (Trampe, Stapel, & Siero, 2007). In spite of this general problem of social comparison as it relates

to the body among women of all ethnicities, there still exist different preferences that distinguish African-American women from women of other ethnicities, especially Caucasian women.

African-American and Caucasian women have been found to value different body types. African-American women on average tend to identify with curvy or fuller-sized body ideals than Caucasian women; weight concerns are not as salient in this group when they are aware of being compared to Caucasian women (Granberg, Simons, & Simons, 2009). Thus, African-American women typically have a lower tendency to engage in disordered eating habits with the aim of weight loss than Caucasian women (Gordon et al., 2010). This observation shows an association between the preferences of both groups of women and their eating tendencies.

Additionally, women from both groups who are dissatisfied with their bodies and are exposed to physically attractive images of women, tend to evaluate themselves negatively. While weight concerns may not be salient among African-American women, Granberg et al. discovered that full-figured African-American women who view thinner African-American women feel less attractive and stigmatized by others within their community due to their full-size body. However, Brega and Coleman (1999) suggest that on the whole, African-American women are shielded from a negative reaction to their weight status due to an adoption of a bicultural orientation on body image standards where they negotiate between the dominant European American standard and the African-American standard; adopting elements from both standards serves as a buffer against the pressures that come from being held to the mainstream media standard alone. Nonetheless, exposure to mainstream body image ideals promoted in the media can have

an impact on African-American women's body image and lead to eating disorders in this group.

Influence of Media on African-American Body Image

Women who are exposed to nonverbal slimness biases are unconsciously influenced in their attitudes toward body ideals to adopt such an ideal (Weisbuch & Ambady, 2009). However, contrary to expectation, it has been discovered that African-American women who receive more exposure to these media standards of beauty are more resilient against developing eating disorders as a result of comparison to Caucasian women. Poran (2006) postulates that a strong sense of support of full-size body ideals from other members within this community serves as a main facilitator of the resilience found among African-American women.

Additionally, it has been discovered that exposure to society's standards of beauty does not have a significant correlation with increased internalization of these standards among African-American women (Wood & Petrie, 2010). The media, thus, is not the predominant factor that contributes to poor body image and dissatisfaction, which can progress to disordered eating among African-American women. There are other factors that contribute to this phenomenon in women, such as affluence and women getting married later in life (Ferguson, Winegard, & Winegard, 2011).

In spite of findings that suggest a high level of resilience in African-American women against mainstream body and image standards, researchers still believe there is a high relative prevalence of disordered eating among African-American women. However, this phenomenon has not been sufficiently explored due to limited research on

this subgroup (Harrington et al., 2010) and cultural factors that reduce the likelihood of detecting an eating disorder among African-American women.

Disordered eating among African-American women can go undetected for years due to a constant presence of food in public environments where African-Americans meet, such as churches and social gathering. Such social gatherings are typical within the African-American community, especially the traditional African-American family reunion where food is one of the key highlights of this gathering (McCoy, 2011). It is also culturally acceptable to turn to food in times of celebration and mourning, thus binge-eating habits could go unrecognized for long periods of time. Further, due to the constant presence of food in social gatherings within this community, African-American women who may have anorexia can easily avoid eating by pretending to have eaten at a previous gathering (Bagley, Character, & Shelton, 2003).

Due to cultural preferences for a fuller figure, anorexia and bulimia nervosa are eating disorders that are not typically common among African-American women (Reddy et al., 2011; Stephens & Few, 2007). However, engaging in social comparison on the dimension of physical appearance, places African-American women, like women of other ethnicities, at a risk of developing an eating disorder. Therefore, in consideration of cultural preferences, the prevalent eating disorder among African-American women tends to be binge eating disorder (Reddy et al., 2011).

Binge Eating Disorder

Binge Eating Disorder (BED) is a relatively new eating disorder categorized by the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. Similar to bulimia nervosa, binge eating disorder is characterized

by recurrent overeating. However, unlike bulimia, this eating disorder is not accompanied by compensatory purging behaviors aimed at controlling body weight. Emotional disturbance or negative affect are main contributors to the onset of binge eating in individuals (Grilo, Masheb, & Wilson, 2001).

The binge eating episode typically takes place within a short period of time, typically within the span of two hours. Binge eaters tend to believe they have no control over their binge eating during an episode. Approximately 50 percent of individuals with BED are obese (De Young, Lavender, Wilson, & Wonderlich, 2012).

In a study cited by Pull (2004), Caucasian women with BED were eight times more likely than African-American women with BED to be described as meeting the criteria for a history of bulimia nervosa. African-American women also had less dietary restraint and concern about eating, their weight, and their shape. They also engaged in more binging episodes than their Caucasian counterparts.

A difficulty regulating negative emotions brought on by social comparison has been attributed as a factor leading individuals to binge-eat. Such individuals use the food to cope or relieve the emotional distress they experience (Telch, Agras, & Linehan, 2001). While a desire to cope or escape negative emotions can be correlated with binge-eating disorder, it is not the cause of BED. There are several cases of emotional eating that never progress to binge-eating behavior and ultimately to BED (Zeeck, Stelzer, Linster, Joos, & Hartmann, 2011).

Among African-American women, BED has been found as a more prevalent eating disorder than anorexia and bulimia nervosa. This finding is specifically common among African-American women who are survivors of some form of trauma in

comparison to African-American women who have not endured trauma. According to Harrington et al. (2010), a possible mediating factor between surviving trauma and developing BED is the culturally popular Strong Black Woman (SBW) phenomenon. This cultural ideal dates back to the slavery era where it served as a rationalization of the cruel practices carried out against African-American women; they were regarded as more resilient physically and psychologically in comparison to Caucasian women (Beauboeuf-Lafontant, 2003).

Over the years, the SBW ideal has been heavily adopted in the African-American community as the ultimate identity of every African-American woman where she is viewed as strong and resilient in all aspects of her life. She is also expected to be a good caretaker and a strong-willed woman who can surmount any difficulty (Beauboeuf-Lafontant, 2003). As stated by Woods-Giscombé (2010), in essence, this ideal portrays African-American women as *superwomen* who can handle every situation. While many African-American women are able to survive and persevere under this cultural ideal, there are adverse consequences suffered by those who are unable to live up to its demanding expectations (Beauboeuf-Lafontant, 2003). Harrington et al. (2010) further suggested that the inability to meet these expectations drives African-American women into binge-eating behaviors to regulate and cope with disappointment and other negative emotions as a result. Harrington et al. (2010) further attribute self-esteem with the development and sustenance of the Strong Black Woman ideal among African-American women. Thus, through research, self-esteem is explored as a possible mediating factor between body image and disordered eating patterns in African-American women.

Self-Esteem as a Mediator between Body Image and Disordered Eating

King (1997) defines self-esteem as the feelings individuals have with regard to the way they view themselves in terms of appearance, wealth, and other factors that affect the way people perceive themselves. It also includes individuals' opinions about their values and sense of worth (Eaton, Livingston, & McAdoo, 2010). Striegel-Moore and Cachelin (1999) found that women of all ethnicities in America who had low self-esteem were more prone to accepting and internalizing images of thinness promoted in society and the mainstream media in comparison to women who had higher self-esteem. Tylka and Sabik (2010) further assert that women who have low self-esteem tend to rely on their society to formulate a standard for their body image (such as thinness in American society) rather than developing their own standard. Thus, women with low self-esteem are more likely to engage in social comparison and allow sociocultural factors to influence their body image.

According to Molloy and Herzberger (1998) low self-esteem in association with body image formulated through social comparison and sociocultural factors places women at a higher risk for developing eating disorders. Lennon et al. (1999) however, disagree with this assertion that having low self-esteem automatically predisposes women to developing eating disorders as a result of social comparison. These authors argue that people who do not meet the mainstream body image criteria who feel stigmatized as a result, tend to compare themselves with individuals who share similarities with them. Thus by engaging in this self-evaluative appraisal (Krayer et al., 2008), the self-esteem of women remains stable and no true loss or lowering of self-esteem can be accurately detected.

In regard to African-American women's self-esteem Molloy and Herzberger (1998) found that African-American women tend to have higher self-esteem than Caucasian women on issues relating to appearance. They attribute this difference to the discovery that African-American women typically have a different view of body image where a fuller figure is considered normal and therefore more desirable. Thus, they are less likely to view bodies negatively and resort to disordered eating habits as a coping mechanism. This idea is also supported by Breitkopf et al. (2007).

Rationale

The belief that body image disturbances as a result of social comparison and sociocultural factors do not lead to disordered eating patterns in African-American college women is the rationale for the present study (Molly & Herzberger, 1998). Since African-American women, according to Wood and Petrie (2010) tend to be more resilient against the flooding of beauty ideals that contradict their cultural ideal in the media, they are less likely to suffer from eating disorder symptomatology as a result of a desire to live up to these beauty standards. Further, research has suggested that this finding might be explained by self-esteem (Molloy & Herzberger, 1998). The current study seeks to test this postulation by exploring whether links between body image measures and disordered eating symptomology are mediated by self-esteem in a sample of female African American students.

Research Questions

1. Is BMI associated with disordered eating, and does self-esteem mediate a link between BMI and disordered eating?

2. Does the difference between actual and ideal perceived body image predict disordered eating, and does self-esteem mediate that link?

Method

Participants

The participants selected for this study were 21 African-American undergraduate females between the ages of 18 and 25 from a large private university on the southeastern coast. The university's Institutional Review Board (IRB) approved participation in the survey.

Participants were invited through the Psychology department's psychology activity pool at Liberty University. Invitation to participate in the study was restricted to African-American undergraduate females between the ages of 18 and 25, since they were the target population being studied. Following their participation, participants recruited through the aforementioned methods were also encouraged to invite others who met the participation criteria.

In total, the mean age of participants was 20.38 with a standard deviation of 1.962. Participants' average current weight in *lbs*. was 157.67 (standard deviation = 30.598) and their average height was 65.80 inches (standard deviation = 4.683).

Procedure

Participants scheduled appointments and reported to a location specified by the researcher. Additionally, the researcher held two scheduled sessions on two separate days with a time window for each day where many participants could report and take the survey. This use of sessions in addition to scheduled appointments as a recruitment tool was done to accommodate potential participants who were unable to successfully

schedule an appointment due to schedule conflicts. Participants had to demonstrate that they met the participation criteria before appointments were approved and scheduled. They answered four questions that addressed their gender, ethnicity, age, and level of college.

Locations used to administer the survey included a classroom, a graduate student assistant work room, and a lab in Liberty University's psychology department. Upon reporting to their appointment, participants were given an informed consent form to read. Since the survey was anonymous, they were not required to sign the consent form, which they were allowed to keep for their records. Participants verbally indicated their agreement to participate. Following their consent, they were given the 51-item hard copy survey with a pencil to complete. The survey took each participant no more than 15 minutes to complete.

Participants were instructed to complete the survey to the best of their ability. They were instructed to avoid giving any information on the survey such as their names or student identification numbers, which would allow the researcher to link their answers to them. The surveys were all anonymous. As noted on the consent form, they were free to skip any question on the survey and discontinue the survey at any point without penalty. Participants were also instructed to drop their surveys in a box placed at the exit of the rooms used to administer the survey and leave at their convenience.

At the end of a 4-week survey administration period, the data collected were analyzed, interpreted, and documented using SPSS.

Measures

The 51-item survey consisted of three different established measures in addition to demographic questions formulated by the researcher.

Stunkard body figure scale. The Stunkard Body Figure Scale for women is a measure that employs images. The scale consists of nine images of Caucasian women who range in body figure. Each figure has a number attached to it ranging from 1 to 9 with 1 being the first and thinnest figure and 9 being the last and largest figure. All the images are identical in terms of their hair, facial appearance, outfit (a one-piece bathing suit), and stance (see Figure 1). The difference that distinguishes each image from the others is the height and weight. Each image represents an average BMI of women who could potentially identify such an image as their own (Mahajan, 2009). The average BMI for the first image in the scale (identified by the number 1) is 18.3 while the average BMI for the middle image (identified by the number 5) is 26.2 and 45.4 for the last image (identified by the number 9).

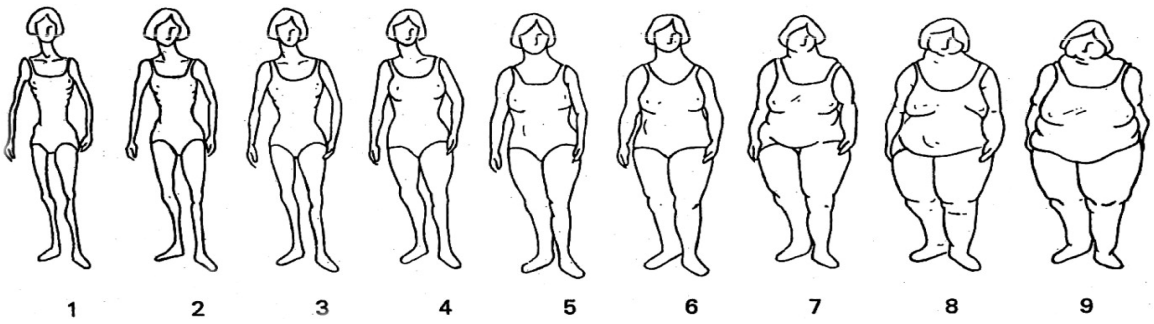

Figure 1. Drawings on the Stunkard Body Figure Scale.

Note. Source - Stunkard, A. J., Sorensen, T., & Schulsinger, F. (1983)

This scale was used twice in the administered survey. Its first appearance was geared toward observing participants' ideal body figure while its subsequent appearance measured what they believed to be their actual body figure. For each instance,

participants were instructed in the survey to select only one image in light of the potential fact that none of the images was accurate in demonstrating the actual and/or ideal body figure of each unique participant because they were generalized and standardized estimates of women's body figures. In the current study, the BMI associated with each participants' choice was used as a measure of perceived actual body image and perceived ideal body image. The difference between these two scores was also calculated and used in the current study.

Rosenberg self-esteem scale. The Rosenberg self-esteem measure is a 10-item scale developed by Morris Rosenberg to measure an individual's global or general self-esteem (Robins, Hendin, & Trzesniewski, 2001; Whiteside-Mansell & Corwyn, 2003). It focuses on measuring an individual's self-esteem based on answers to ten questions (five positively worded and five negatively worded). It is answered based on a four-point scale ranging from strongly agree to strongly disagree.

The highest score possible for each item is 3 while the lowest for each item is 0. (Martin-Albo, Nunez, Navarro, & Grijalvo, 2007). A total score is obtained by reverse coding negatively worded items and summing scores on all ten items (Rosenberg, 1965). Scores range from 0-30. The higher the total calculated score, the higher the self-esteem (Crowe, 2002; Rosenberg, 1965). There is no explicit cutoff score to determine low versus high self-esteem. However, Baumeister, Campbell, Krueger, and Vohs (2003) suggest that higher scores could account for negative attributes in individuals such as narcissism, defensiveness, and being conceited while lower scores may indicate temporary depressive symptoms in individuals.

Sample statements from this measure include, “I certainly feel useless at times,” “I feel that I have a number of good qualities,” and “I take a positive attitude toward myself” (Rosenberg, 1965).

EAT 26 test. The EAT 26 test is a 31 item measure designed to measure eating trends and behaviors among people (Garner, 1993). It is a test administered to help determine if an individual’s eating habits place him/her at a risk for developing an eating disorder. The test is not intended for diagnostic use. Its main purpose is to serve as a tool for alerting individuals of their risks for developing eating disorders and to promote seeking professional help.

The first 26 items on this test are derived from three subscales that assess dieting behavior, bulimia and food preoccupation, and oral control (Garner, Olmsted, Bohr, & Garfinkel, 1982). Sample statements from the first 26 items on this test include “am terrified about being overweight,” “feel that food controls my life,” “engage in dieting behavior,” and “like my stomach to be empty” (Garner, 1993). These items are scored based on a frequency rating scale. For each statement, the participant selected one of six frequencies ranging from “always” to “never.” Each frequency response had a point value attached to it with the lowest being 0 and the highest 3 points for maximum possible score of 78 points. The cutoff score for seeking professional help for potential eating disorders for this test is 20 (Dotti & Lazzari, 1998). In the current sample, scores ranged from 1-26 with a mean score of 7.89 and a standard deviation of 6.68.

In addition to the first 26 items on the EAT-26, there are five questions posed at the end of the test to determine if participants engage in extreme behaviors geared toward controlling weight six months prior to taking the test. These questions ask for information

on behaviors such as whether or not the participant has used laxatives or diet pills to control weight, induced vomiting to control weight, exercising beyond 60 minutes per day, and losing 20 or more pounds. Response options to these range from "never" to "once a day or more" (Garner, 1993).

Per recommendation of the test developer, participants must meet at least one of three criteria to seek professional help for a potential eating disorder. These criteria include having a score of 20 or more on the EAT-26 test, having a low body weight compared to age-matched norms based on BMI, and a response to any of the five additional behavioral questions that indicate extreme eating behaviors and substantial weight loss (Garner, 1993). It is important to note that although participants may have low scores on the EAT-26 test, they may still be at risk for developing an eating disorder (Patton, Johnson-Sabine, Wood, Mann, & Wakeling, 1990).

Results

Results were obtained following analysis in SPSS. Statistics were generated to describe the sample and their scores on the subscales used in the survey (see Table 2). The average participant age was approximately 20.38 years with a standard deviation of 1.962. On average, participants weighed 157.67 *lbs*. with a standard deviation of 30.598. When asked about their highest weight excluding pregnancy, participants reported an average weight of 167.33 *lbs*. and a standard deviation of 35.49 while reporting an average lowest weight of 139.33 *lbs*. with a standard deviation of 25.029. With regard to their ideal weight, participants reported an average of 142.33 *lbs*. with a standard deviation of 21.177.

Statistics					
	Mean	Median	Mode	Standard Deviation	Range
Age	20.38	21	18	1.962	6
Current Height (inches)	69.60	66	69.60	4.683	21.20
Currents Weight (lbs.)	157.67	150	145	30.598	99
Highest Weight Excluding Pregnancy (lbs.)	167.33	160	130	35.49	105
Lowest Weight (lbs.)	139.33	140	110	25.029	83
Ideal Weight (lbs.)	142.33	147	130	21.177	82.5
BMI	26.162	22.93	21.04	6.99	29.75
Rosenberg Self-Esteem	21.67	23	20	4.258	20
Eat-26 Score	7.857	6	4	6.68	25
Perceived Actual Body Figure (Stunkard)	4.238	4	4	1.044	4
Perceived Ideal Body Figure (Stunkard)	3.738	4	4	.584	2

Table 2. Summary statistics of participant responses on survey

Further, participants had an average BMI of 26.162 with a standard deviation of 6.99 (see Figure 2). According to the Center of Disease Control (CDC), this BMI score falls under the overweight status (see Table 3). This result is consistent with the finding by Abrams et al. (1993) that African-American women tend to have an above normal weight status.

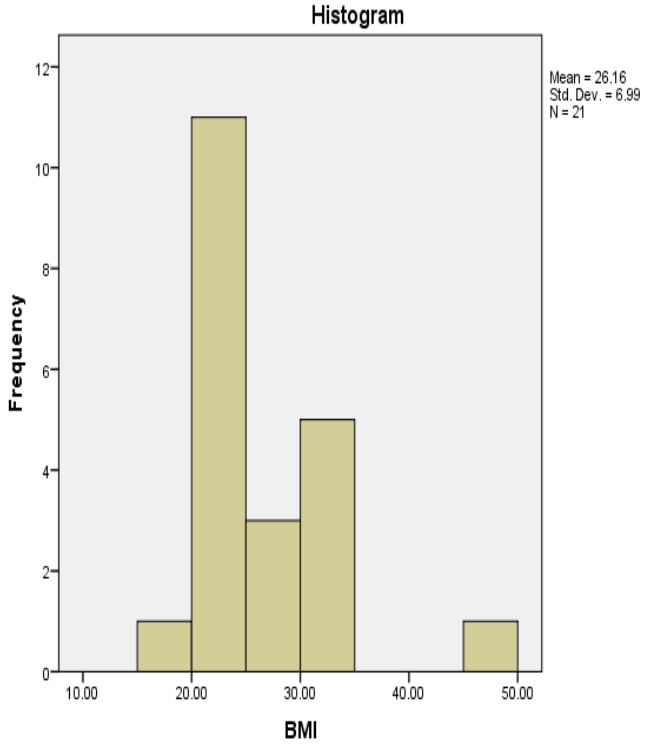

Figure 2. Histogram of Participants' BMI

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and Above	Obese

Table 3. BMI and weight status

On the measure of self-esteem, participants scored an average of 21.67 with a standard deviation of 4.258 suggesting a high level of general self-esteem among African-American women, consistent with Molloy and Herzberger's (1998) discovery of high levels of self-esteem among this population. The mean score on the EAT-26 measure was 7.857 with a standard deviation of 6.68. This average score is approximately 12 points below the cut score of 20 for the measure, suggesting no prevalence of eating disorders in African-American women. However, when analysis was done on potential risk of developing an eating disorder observed through EAT-26 behavioral questions, approximately 52% of participants were found to be at risk.

Analysis on participants' perceived actual body image determined by the Stunkard Body Figure Scale showed that participants believed they closely resembled

image 4 on the scale representing an average BMI of 23.1(see Table 4) falling within the CDC's definition of a normal to overweight status. The result from this analysis does not lend support to Franko and Roehrig's (2011) finding that African-American women tend to be of a heavier weight status.

Drawing	1	2	3	4	5	6	7	8	9
BMI	18.3	19.3	20.9	23.1	26.2	29.9	34.3	38.6	45.4

Table 4. Women's Average BMI for Each Stunkard Drawing.

Note. Source- Bulik et. al. (2001)

With regard to their perceived ideal body image, participants also selected image 4 most frequently. Therefore contrary to the suggestion of Abrams et al. (1993) and Reddy et al. (2011), African-American women on average do not appear to have a preference for a fuller-figured body image.

Bivariate correlations revealed a positive link between participants' perceived actual and ideal BMI. Additionally, a positive link was found between participants' actual BMI and their perceived actual BMI and a positive relationship between African-American women's actual BMI and their perceived ideal BMI. Bivariate correlations also revealed a positive link between participants' BMI and the difference between their perceived actual and ideal BMI. Positive links were also found between participants' current weight and their ideal weight, and between their lowest weight and their ideal weight (see Table 5).

Bivariate Correlations		
Correlation	**R-value**	**P-value**
Perceived actual and perceived ideal BMI	.440	.046
Actual and perceived actual BMI	.787	< .001
Actual and perceived ideal BMI	.478	.029
BMI and difference between perceived actual and perceived ideal BMI	.787	< .001
Current weight and ideal weight	.850	< .001
Lowest weight and ideal weight	.783	< .001

Table 5. Summary of Bivariate Correlations

Mediation Models

In order to answer the study's research questions, results were obtained from running two mediational models in SPSS following the technique developed by Baron and Kenny (1986). The first model sought to determine whether a link existed between BMI and disordered eating in African-American women. Self-esteem was analyzed as a mediating factor in this model. The second model sought to determine a link between the difference between perceived actual and ideal body figures and disordered eating in African-American women. Similar to the first model, self-esteem was analyzed as a mediating factor in the model.

BMI and disordered eating. Based on the technique developed by Baron and Kenny (1986), the first analysis tested the first research question, addressing the relationship between BMI and disordered eating in the participants. The first step of the analysis sought to demonstrate a correlation between BMI and disordered eating among African-American college women. The model was not significant in this first step ($F(1, 19)= .531$, $p=.475$, $R^2=.027$) suggesting there is no link between BMI and disordered

eating in African-American college women. The next step sought to associate BMI with the mediating variable of self-esteem in the model. The result from this step was not significant ($F(1, 19)= .134$, p=.718, R^2=.007), demonstrating no apparent link between African-American women's BMI and self-esteem. In the third step however, which sought to determine the effect of the mediating variable of self-esteem on the outcome of disordered eating, there was a significant relationship ($F(2, 18)= 5.009$, p=.019, R^2=.358). The result from this step showed a relationship between self-esteem and disordered eating in African-American college women; however, a mediation model was not supported (see Figure 3).

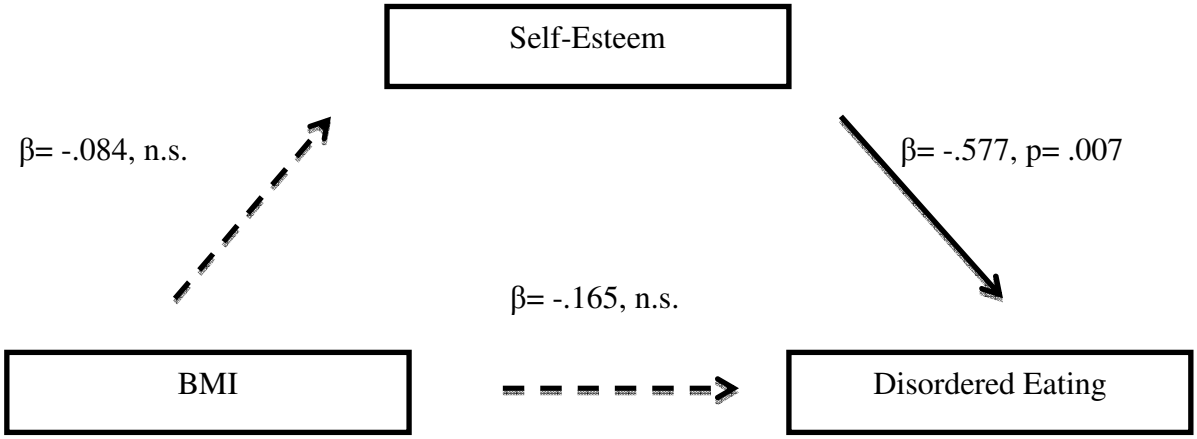

Figure 3. Mediational Model Showing Relationship between BMI and Disordered Eating

Body image and disordered eating. The second model run answered the second research question addressing the relationship between the difference found between perceived actual and ideal body image and disordered eating in African-American college women. The first step of the analysis sought to demonstrate an effect of the difference between perceived actual and ideal body image on disordered eating among African-American college women. The model was not significant in this first step ($F(1, 19)= .897$,

p=.355, R^2=.045) suggesting there is no effect of the difference between perceived actual and ideal body image on disordered eating in African-American college women. The next step sought to correlate the difference between perceived actual and ideal body image with the mediating variable of self-esteem in the model. The result from this step was significant (F(1, 19)= 7.14, p=.015, R^2=.273), demonstrating an effect of perceived actual and ideal body image on African-American women's self-esteem. In the third step, which sought to determine the effect of the mediating variable of self-esteem on the outcome of disordered eating, there was a significant relationship (F(2, 18)= 4.258, p=.031, R^2=.321). The result from this step showed a relationship between self-esteem and disordered eating in African-American college women; however, a mediation model was not supported (see Figure 4).

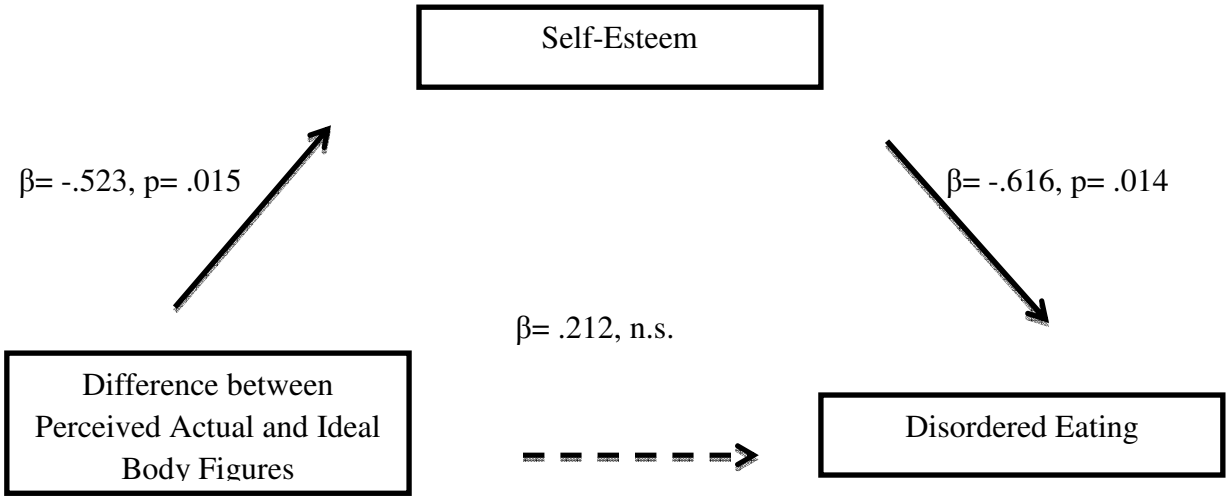

Figure 4. Mediational Model Showing the Relationship between Body Image and Disordered Eating.

Discussion

The literature on the issue of body image in African-American women suggests that they tend to have a weight status that is above normal. Based on results from the study, support is given to this belief and contributes to a growing body of research on the topic. However, support is not given to the notion that African-American women ideally prefer a weight status that is consistent with or higher than their current weight status. The results of participants' reported ideal weight demonstrated an average ideal weight that was lower than their current weight.

Research has suggested several factors that might explain the discrepancy between actual and ideal weight in African American female students. One factor could be shifting cultural attitudes concerning acceptable weight that has gone unidentified in the literature. While African-American women may still prefer a curvaceous figure as a result of sociocultural factors, they may choose to consider a thinner body figure as acceptable for reasons unrelated to beauty or body image. Due to problems associated with a fuller or obese weight such as diabetes, heart problems, and other medical concerns, African-American women may choose a slimmer ideal weight to avert health concerns (Sadler et al., 2005). Thus, it is imperative that future studies place an emphasis on assessing different attitudes toward acceptable weight status among African-American women with measures that give a more comprehensive analysis of acceptable weight that goes beyond body image or beauty concerns.

A goal of the present study was to determine if there is a prevalence of eating disorders in African-American college women assessed via the EAT-26 test. Results from this measure confirmed the general consensus in the research of the low prevalence of

eating disorders among African-American women based on a majority of scores falling below the cutoff score of 20. However, 52% of participants were identified as at-risk for an eating disorder.

Therefore, there is a need for further study into the eating behavior of African-American women where an emphasis is placed on observing binge eating trends among this population.

Consistent with findings in the literature, participants on average demonstrated high self-esteem based on scores on the Rosenberg self-esteem scale (Harrington et al., 2010; Molloy & Herzberger, 1998). It is important to note however, that the scores yielded may represent an exaggeration owing to the method used to recruit voluntary participants. Since they were mainly recruited through the Psychology department's psychology activity pool, participants were likely to be psychology majors or students in psychology courses who may have studied the construct of self-esteem. Thus, their responses to questions on the Rosenberg scale could represent an inflation of their true self-esteem for the sake of presenting themselves in what they may consider a more positive light.

The use of a four-point scale on the self-esteem measure may have also limited participants' ability to give a more accurate response to the questions. Further research could employ a wider scale such as a seven-point scale to achieve more accurate results.

The current study found that contrary to suggestion in the literature, African-American women did not necessarily demonstrate a preference for a heavier body image observed via the Stunkard Body Figure Scale. In addition to a possible shift in cultural attitudes toward body image, the images used in the Stunkard scale could explain this

contradiction to the literature. Participants may not have associated the figures with body figure types that are commonly found among African-American women. Thus, further research that employs figures that closely resemble typical African-American body figures may yield results that are more consistent with current research.

The results from the mediator models that were run to address the questions posed in the current study, failed to demonstrate self-esteem as a mediating factor in both models due to no significant relationship found between the criterion and outcome variables. The results from both models show that neither BMI nor the difference between perceived actual and ideal body images has a significant effect on disordered eating among African-American women. However, both models demonstrated that a significant relationship exists between self-esteem and disordered eating among African-American college women.

This finding contradicts suggestions in the literature that self-esteem serves as a shield against the development of eating disorders among African-American women (Molly & Herzberger, 1998). Rather, self-esteem may serve as a predictor of disordered eating among African-American women. However, results from the second model showed a significant relationship between the difference between perceived actual and ideal body figures and self-esteem. These findings suggest a need for more research into the influence of cognitive appraisals of discrepancies between ideal and perceived actual body image on self-esteem and ultimately disordered eating behaviors. Such research would have implications for intervention programs.

Limitations

While results of this study answered the research questions posed in the current study, there were some limitations present. First, the sample size used in this study was relatively small and thus, has implications for generalizability to larger populations. The results may not be applicable to African-American women from different socioeconomic backgrounds that may have been excluded in the sample surveyed. The sample size was not in the full control of the researcher due to time and willingness to participate factors on the part of the participants. With regard to the sample participants studied, their association with an evangelical Christian school may limit generalizability to diverse groups within the larger African-American woman demographic group.

Further, results from the study could be skewed and exhibit selection bias because participants used were volunteers. Additionally, results could be biased due to the method used to recruit participants. The use of the Psychology department's psychology activity pool suggests that all participants were either psychology majors or students who were enrolled in psychology classes. Therefore, they potentially had knowledge of the constructs assessed in the survey and could have given responses that they deemed socially acceptable.

Though not a goal of the current study, the EAT-26 measure also had limitations in terms of its practical utility. The EAT-26 was used to assess potential risk for developing eating disorders among this group; however, it is not effective in demonstrating which specific disorders constituted a risk for participants. Therefore, it is difficult to determine a specific plan in addressing eating disorder concerns among this demographical group. In future studies, the limitations of the EAT-26 testing instrument

can be ameliorated by employing a measure or multiple measures that target and assess specific eating disorders.

In addition to the aforementioned limitations, the drawings in the Stunkard Body Figure Scale that was used might represent a cultural bias. The images in this measure are representative of Caucasian women and are less accurate in depicting the physical features of African-American women. Thus, the selections made by the participants on the item that assessed their ideal body figure may not be indicative of African-American women's ideal body figure. As such, results from this item may not be applicable to African-American women's cultural preferences and may limit generalizability to a larger African-American female population. This limitation could be alleviated in future research by reconstructing the images to more accurately depict African-American women.

Future Research

Future research could be conducted at an institution where there are more diverse people within the larger population of African-American college women. Conducting research at such an institution could limit selection bias by allowing for a more diverse sample of African-American college women to be adequately represented in the study. Further, future studies could employ measures that would focus on observing specific eating disorder trends within this group. The study can also be expanded to investigate eating disorder prevalence in other minority populations such as Hispanic-American and Asian-American college women. These minority groups, including African-American college women, can further be compared among one another to observe any trends and prevalence of disordered eating among them.

Exploring eating disorders among minority college women while taking social comparison and sociocultural factors into consideration could have implications on the kinds of programs universities make available to these students. With the knowledge obtained from this type of research, university student care and counseling centers could fine-tune their services to cater to the specific and potentially different needs of ethnic minority female college students. Additionally, an awareness of the predominant eating trends, the cultural values, and beauty standards held by minority women could potentially help trained counselors and leaders in campus dormitories detect and prevent students from engaging in disordered eating behaviors.

References

Abrams, K. K., Allen, L., & Gray, J. J. (1993). Disordered eating attitudes and behaviors, psychological adjustment, and ethnic identity: A comparison of black and white female college students. *International Journal of Eating Disorders, 14, 49 –57.*

Anschutz, D. J., Van Strien, T., & Engels, R. C. M. E. (2008). Exposure to slim images in mass media: Television commercials as reminders of restriction in restrained eaters. *Health Psychology, 27*(4), 401-408. doi: 10.1037/0278-6133.27.4.401

Bagley, C. A., Character, C. D., & Shelton, L. (2003). Eating disorders among urban and rural African American and European American Women. *Women and Therapy, 26*(1-2), 57-79.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest, 4*, 1-44.

Beauboeuf-Lafontant, T. (2003). Strong and large Black women? Exploring relationships between deviant womanhood and weight. *Gender and Society, 17*(1), 111-121. doi: 10.1177/08912432022389

Bjerke, R., & Polegato, R. (2006). How well do advertising images of health and beauty travel across cultures? A self-concept perspective. *Psychology & Marketing, 23*(10), 865-884.

Brega, A. G., & Coleman, L. M. (1999). Effects of religiosity and racial socialization on subjective stigmatization in African-American adolescents. *Journal of Adolescence, 22*, 223-242.

Breitkopf, C. R., Littleton, H., & Berenson, A. (2007). Body image: A study in a tri-ethnic sample of low income women. *Sex Roles, 56*, 373-380. doi: 10.1007/s11199-006-9177-x

Bulik, C. M., Wade, T. D., Heath, A. C., Ng, M., Stunkard, A. J., & Eaves, L. J. (2001). Relating body mass index to figural stimuli: Population-based normative data for Caucasians. *International Journal of Obesity, 25*, 1117-1524.

Cashel, M. L., Cunningham, D., Landeros, C., Cokley, K. O., & Muhammad, G. (2003). Sociocultural attitudes and symptoms of bulimia: Evaluating the SATAQ with diverse college groups. *Journal of Counseling Psychology, 50*(3), 287-296. doi: 10.1037/0022-0167.50.3.287

Center of Disease Control (CDC). (2007b). BMI- Body Mass Index. Retrieved March 5, 2013, from http://www.cdc.gov/nccdphp/dnpa/healthyweight/assessing/bmi/

Crowe, T. (2002). Translation of the Rosenberg self-esteem scale into American Sign Language: A principal component analysis. *Social Work Research, 26*(1), 57-63.

De Young, K. P., Lavender, J. M., Wilson, G. T., & Wonderlich, S. A. (2012). Binge eating disorder in DSM-V. *Psychiatric Annals, 42*(11), 410-413.

Dijkstra, P., Gibbons, F. X., & Buunk, A. P. (2010). Social comparison theory. In J. E. Maddux & J. P. Tangney (Eds.), *Social psychological foundations of clinical psychology* (pp. 196-211). New York, NY: Guilford Press.

Dittmar, H. (2005). Vulnerability factors and processes linking sociocultural pressures and body dissatisfaction. *Journal of Social and Clinical Psychology, 24*(8), 1081-1087.

Dotti, A., & Lazzari, R. (1998). Validation and reliability of the Italian EAT-26. *Eating and Weight Disorders, 3*, 188-194.

Eaton, S. C., Livingston, J. N., & McAdoo, H. P. (2010). Cultivating consciousness among Black women: Black nationalism and self-esteem revisited. *Journal of Black Studies, 40*(5), 812-822. doi: 10.1177/0021934708320012

Fears, L. M. (1998). Colorism of black women in news editorial photos. *Western Journal of Black Studies, 22*(1), 30-36.

Ferguson, C.J., Winegard, B., & Winegard, B. M. (2011). Who is the fairest one of all? How evolution guides peer and media influences on female body dissatisfaction. *Review of General Psychology, 15*(1), 11-28. doi: 10.1037/a0022607

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.

Fisher, E., Dunn, M., & Thompson, J. K. (2002). Social comparison and body image: An investigation of body comparison processes using multidimensional scaling. *Journal of Social and Clinical Psychology, 21*(5), 566-579.

Franko, D. L., & Roehrig, J. P. (2011). African American body images. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (pp. 221-228). New York, NY: Guilford Press.

Garner, D. M. (1993). Self-report measures for eating disorders. *Current Content, Social, and Behavioral Sciences, 8*(8).

Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The eating attitudes test: Psychometric features and clinical correlates. *Psychological Medicine, 12*, 871-878.

Gordon, K. H., Castro, Y., Sitnikov, L., & Holm-Denoma, J. M. (2010). Cultural body shape ideals and eating disorder symptoms among White, Latina, and Black college women. *Cultural Diversity and Ethnic Minority Psychology, 16*(2), 135-143. doi: 10.1037/a0018671

Granberg, E. M., Simons, L. G., & Simons, R. L. (2009). Body size and social self-image among adolescent African American girls: The moderating influence of family racial socialization. *Youth & Society, 41*(2), 256-277. doi: 10.1177/0044118X09338505

Grilo, C. M., Masheb, R. M., & Wilson, G. T. (2001). Subtyping binge eating disorder. *Journal of Consulting and Counseling Psychology, 69*(6), 1066-1072.

Halliwell, E., & Harvey, M. (2006). Examination of a sociocultural of disordered eating among male and female adolescents. *British Journal of Health Psychology, 11*, 235-248. doi: 10.1348/135910705X39214

Harrington, E. F., Crowther, J. H., & Shipherd, J. C. (2010). Trauma, binge eating, and the "strong black woman." *Journal of Consulting and Clinical Psychology, 78*(4), 469-479. doi: 10.1037/a0019174

Hesse-Biber, S., Leavy, P., Quinn, C. E., & Zoino, J. (2006). The mass marketing of disordered eating and eating disorders: The social psychology of women, thinness, and culture. *Women's Studies International Forum, 29*, 208 –224. doi:10.1016/j.wsif.2006. 03.007.

King, K. (1997). Self-concept and self-esteem: A clarification of terms. *The Journal of School Health, 67*(2), 68-70.

Krayer, A., Ingledew, D. K., & Iphofen, R. (2008). Social comparison and body image in adolescence: A grounded theory approach. *Health Education Research, 23*(5), 892-903. doi:10.1093/her/cym076

Lennon, S. J., Lillethun, A., & Buckland, S. S. (1999). Attitudes toward social comparison as a function of self-esteem: Idealized appearance and body image. *Family and Consumer Sciences Research Journal, 27*(4), 379-405.

Mahajan, A. (2009). Comparing self and others' perceptions of adolescent girls' body size using figural stimuli and 3d body scans (Master's thesis). Available from Auburn University Theses and Dissertations database.

Martin-Albo, J., Nunez, J. L., Navarro, J. G., & Grijalvo, F. (2007). The Rosenberg self-esteem scale: Translation and validation in university students. *The Spanish Journal of Psychology, 10*(2), 458-467.

Mazur, A. (1986). U.S. trends in feminine beauty and over adaptation. *The Journal of Sex Research, 22*, 281-303.

McCoy, R. (2011). African American elders, cultural traditions, and the family reunion. *Journal of the American Society on Aging, 35*(3), 16-21.

Molloy, B. L., & Herzberger, S. D. (1998). Body image and self-esteem: A comparison of African-American and Caucasian women. *Sex Roles, 38*(7/8), 631-643.

Morrison, T. G., Kalin, R., & Morrison, M. A. (2004). Body-image evaluation and body-image investment among adolescents: A test of sociocultural and social comparison theories. *Adolescence, 39*(155), 571-592.

Myers, T. A., Ridolfi, D. R., Crowther, J. H., & Ciesla, J. A. (2012). The impact of appearance-focused social comparisons on body image disturbance in the naturalistic environment: The roles of thin-ideal internalization and feminist beliefs. *Body Image, 9*(3), 342-351. doi:10.1016/j.bodyim.2012.03.005

Patton, G. C., Johnson-Sabine, E., Wood, K., Mann, A. H., & Wakeling, A. (1990). Abnormal eating attitudes in London schoolgirls: A prospective epidemiological study-outcome at twelve month follow-up. *Psychological Medicine, 20*, 383-394.

Poran, M. A. (2006). The politics of protection: Body image, social pressures, and the misrepresentation of young black women. *Sex Roles, 55*, 739-755. doi: 10.1007/s11199-006-9129-5

Pull, C. B. (2004). Binge eating disorder. *Current Opinion in Psychiatry, 17*, 43-48. doi: 10.1097/01.yco.0000109572.75493.57

Reddy, S. D., Edwards, C. L., Wood, M., O'Garo, K., Morgan, K., Edwards, L., … Whitfield, K. E. (2011). Body image in a sample of adult African American males and females with sickle cell disease (SCD). *Journal of African American Studies, 15*, 115-119. doi: 10.1007/s12111-009-9114-5

Robins, R. W., Hendin, H. M., & Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg self-esteem scale. *Personality and Social Psychology Bulletin, 27*(2), 151-161. doi: 10.1177/0146167201272002

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Sadler, G. R., Escobar, R. P., Ko, C. M., White, M., Lee, S., Neal, T., & Gilpin, E. A. (2005). African-American women's perceptions of their most serious health problems. *Journal of the National Medical Association, 97*(1), 31-40.

Stephens, D. P., & Few, A. L. (2007). The effects of images of African American women in hip hop on early adolescents' attitudes toward physical attractiveness and interpersonal relationships. *Sex Roles, 56*, 251-264. doi: 10.1007/s11199-006-9145-5

Striegel-Moore, R. H., & Cachelin, F. M. (1999). Body image concerns and disordered eating in adolescent girls: Risk and protective factors. In N. G. Johnson, M. C. Roberts, & J. Worrel (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 85– 108). Washington, DC: American Psychological Association.

Stunkard, A. J., Sorensen, T., & Schulsinger, F. (1983). Use of the Danish adoption register for the study of obesity and thinness. In Kety, S. S., Rowland, L. P., Sidman, R. L., & Matthysse, S. W. (Eds.), *Genetics of Neurological and Psychiatric Disorders* (pp. 115-120). New York: Raven.

Suls, J., & Wheeler, L. (2000). A selective history of classic and neo-social comparison theory. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 1-23). Dordrecht, The Netherlands: Kluwer Academic.

Taylor, S. E., & Lobel, M. (1989). Social comparison activity under threat: Downward evaluation and upward contacts. *Psychological Review, 96*(4), 569-575.

Telch, C. F., Agras, W. S., & Linehan, M. M. (2001). Dialectical behavior therapy for binge eating disorder. *Journal of Consulting and Counseling Psychology, 69*(6), 1061-1065.

Thompson, K. J., Heinberg, L. J., Altabe, M., Tantleff-Dunn, S. (2002). *Exacting beauty: Theory, assessment, and treatment of body image disturbances*. Washington, DC: American Psychological Association.

Trampe, D., Stapel, D. A., & Siero, F. W. (2007). On models and vases: Body dissatisfaction and proneness to social comparison effects. *Journal of Personality and Social Psychology, 92*(1), 106-118.

Tylka, T. L., & Sabik, N. J. (2010). Integrating social comparison theory and self-esteem within objectification theory to predict women's disordered eating. *Sex Roles, 63*, 18-31. doi: 10.1007/s11199-010-9785-3

Weisbuch, M., & Ambady, N. (2009). Unspoken cultural influence: Exposure to and influence of nonverbal bias. *Journal of Personality and Social Psychology, 96*(6), 1104-1119. doi: 10.1037/a0015642

Whiteside-Mansell, L., & Corwyn, R. F. (2003). Mean and covariance structures analyses: An examination of the Rosenberg self-esteem scale among adolescents and adults. *Educational and Psychological Measurement, 63*(1), 163-173. doi: 10.1177/0013164402239323

Wipper, A. (1972). African women, fashion, and scapegoating. *Canadian Journal of African Studies, 6*(2), 329-.

Wood, N. A. R., & Petrie, T. A. (2010). Body dissatisfaction, ethnic identity, and disordered eating among African American women. *Journal of Counseling Psychology, 57*(2), 141-153. doi: 10.1037/a0018922

Woods-Giscombe, C. L. (2010). Superwoman schema: African American women's views on stress, strength, and health. *Qualitative Health Research, 20*(5), 668-683.

Zeeck, A., Stelzer, N., Linster, H. W., Joos, A., & Hartmann, A. (2011). Emotion and eating in binge eating disorder and obesity. *European Eating Disorders Review, 19*, 426-437.