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# Body Satisfaction and Maladaptive Relationships with Food in African American Women

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## ACCEPTANCE

This dissertation, BODY DISSATISFACTION AND MALADAPTIVE RELATIONSHIPS WITH FOOD IN AFRICAN AMERICAN WOMEN: AN EXPLORATION OF IMAGE-DRIVEN AND HEALTH-RELATED INFLUENCES, by ANGELA K. MONTFORT, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty. The Dean of the College of Education concurs.

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BODY SATISFACTION AND MALADAPTIVE RELATIONSHIPS WITH FOOD IN  
AFRICAN AMERICAN WOMEN

by

ANGELA MONTFORT

Under the Direction of Dr. Greg Brack

ABSTRACT

The purpose of this study was to investigate body satisfaction and maladaptive relationships with food as it related to ethnic identity for college-aged African American women. The study acknowledged complexities inherent in women's maladaptive eating behaviors. I explored how maladaptive relationships with food may be moderated by ethnic identity (Rogers-Wood & Petrie, 2010), and associated with concerns for body image ideals (Capodilupo & Kim, 2013; Cheney, 2011;) or concerns related to health (Di Noia et al., 2009; Rich & Thomas, 2008). The study further examined the importance that women placed on appearance-related concerns in relationship to the importance that women placed on attending to concerns related to health. The sample consisted of 189 undergraduate and graduate African American women attending a university in the southeastern region of the United States, who were between the ages of 18 and 35.

Analyses of correlations suggested that maladaptive eating was associated with low body satisfaction and high concerns for appearance. Findings also suggested that higher levels of ethnic identity were associated with lower levels of body satisfaction. Body satisfaction was inversely related to body mass index, such that women with higher body mass indexes tended towards lower body satisfaction. There was no significant relationship between ethnic identity and maladaptive eating. Moreover, higher levels of ethnic identity were associated with lower levels of health consciousness. Contrary to predictions, body image satisfaction and concerns for appearance were positively correlated with the importance that women placed on health consciousness.

Multiple regression analyses were utilized to investigate the moderating effects of ethnic identity on the relationship between maladaptive eating and body satisfaction, as well as on the relationship between maladaptive eating and health consciousness. Regression analyses indicated significant moderating effects of ethnic identity only for the relationship between maladaptive eating and health consciousness. Ethnic identity moderated the relationship between maladaptive eating and health consciousness particularly for women with low levels of ethnic identity, while accounting for body mass index and body image concerns. Clinical implications for addressing body image concerns, maladaptive eating, and concerns about health with African American women are discussed.

**INDEX WORDS:** African American Women, Body Image, Eating, Health

BODY SATISFACTION AND MALADAPTIVE RELATIONSHIPS WITH FOOD IN  
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ANGELA MONTFORT

A Dissertation

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in

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in

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Atlanta, GA  
2014

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# **1 BODY DISSATISFACTION IN COLLEGE-AGED AFRICAN AMERICAN WOMEN: AN EXPLORATION OF ETHNICITY, INFLUENCES, AND INTERVENTIONS**

In the United States, society's reverence of thin, slim body types has provoked negative implications for the perceptions that women hold regarding their own bodies (Duncan & Robinson, 2004; Jefferson & Stake, 2009). Particularly for African American women, Western stereotypes of beauty can reflect unhealthy ideals of thinness that trigger body image issues, body dissatisfaction and maladaptive relationships with food (Henrickson, Crowther, & Harrington, 2010; Hesse-Biber, Leavy, Quinn, & Zoino, 2006; Rogers-Wood & Petrie, 2010). Body image is a complex construct that encompasses an individual's body perception and attitude towards her body size, body parts, and overall body (Dittmar, Halliwell, & Ive, 2006; Heinberg, 1996; Flowers, Levesque, & Fischer, 2012). Body dissatisfaction, a subjective component of body image, represents negative mood and affect relating to body image and can be precursors to disordered eating (Flowers et al., 2012; Heinberg, 1996). African American women who have body dissatisfaction may have histories of failed attempts at dietary control and other maladaptive relationships with food (Chandler-Laney, et al., 2009). Maladaptive eating may further be a struggle in terms of unhealthy and perfectionistic rules regarding food intake (Ashby, Kottman, & Schoen, 1998; Brown, Parman, Rudat, & Craighead, 2012) .

Body mass indexes in obese ranges have been positively correlated with body image dissatisfaction for African American women (Harris, 1995). Obesity is considered a pandemic (King, 2013; Pittman, 2013). There has been an increase in overweight individuals, and the prev-

Prevalence of obesity in the United States has doubled since 1980 (King, 2013). Although there is report that obesity rates in the United States have plateaued for the first time in three decades (Pittman, 2013), public health initiatives targeting obesity appear to have been ineffective for African American women. This is evidenced by startling statistics showing that obesity rates in America are higher for African American women than any other demographic (The Office of Minority Health, n.d.). Also, they are more vulnerable to risk factors for heart disease, including diabetes and high blood pressure (HHS.gov, 2012). Statistics reflect that four out of five African American women are obese or overweight (The Office of Minority Health, n.d.). These statistics not only suggest issues with body image (Cox, et al., 2011), but also indicate maladaptive relationships with food (Hesse-Biber et al., 2006; Klesges, DeBon, & Meyers, 1996). Nevertheless, body image dissatisfaction is not relegated to any particular type of body structure (Rich & Thomas, 2008; Rosen, 1996).

Given the pervasiveness of body image issues, maladaptive eating behaviors, and health risks among African American women (Rogers-Wood & Petrie, 2010; The Office of Minority Health, n.d.), there is an imperative need for research that illuminates effective ways of addressing body dissatisfaction and maladaptive relationships with food for this population. An exploration of ethnic identity is helpful in this initiative, due to the moderating effects ethnic identity can have on body image and maladaptive eating issues (Abood & Mason, 1997; Baugh et al., 2010). The purpose of this article is to utilize a variety of lens, including biological, sociological, psychological, and cultural theories, to explore how body image issues and maladaptive relationships with food are moderated by ethnicity for African American women. This article also provides a review of biopsychosocial factors influencing the development of body dissatisfaction. Interventions helpful in addressing African American women's body image and maladaptive

tive eating are discussed with the aid of a case illustration woven throughout the article to demonstrate effective uses of the literature for insight and intervention.

The following is a case illustration of an African American woman's body image and maladaptive eating struggles described by J. K. Thompson (2010):

R. K. is a 24-year-old African American woman who binges and purges (by self-induced vomiting) an average of three times each day. She is average weight (5 ft 4 in., 120 lb), but desperately wants to lose 5 lb[s]. She is particularly unhappy with the size of her thighs, stating that it upsets her that they rub together when she walks. In addition, she is concerned that her cheeks are "fat," relating the onset of this concern to teasing from an uncle when she was an adolescent. Her bulimic behavior is exacerbated on days that she is particularly disturbed by the appearance of her cheeks. On a questionnaire of cognitions related to body image she states that she "often" thinks, "How I look ruins everything for me" (p.1).

This excerpt illustrates several components of body dissatisfaction and eating concerns (Flowers et al., 2012; Quick, McWilliams, & Byrd-Bredbenner, 2013; Wojtowicz & von Ranson, 2012). Although a full range of disordered eating behaviors are seen among African American women (Abood & Mason, 1997; American Psychiatric Association, 2013; Corte & Stein, 2000), R. K.'s case is consistent with findings that African American women tend to struggle more with bingeing and bulimic-type behaviors rather than food restriction (Shallcross, 2010). Clinical interventions for clients similar to R. K. should acknowledge the client's sociocultural context, and address biopsychosocial factors associated with body image and maladaptive eating behaviors in order to be most effective (Duncan & Robinson, 2004; Harris, 1995; Thompson, 1996).

### **Sociocultural Theory**

Sociocultural theories explore the influences of cultural or societal ideals, expectations, and influences of mass media, on the etiology of body image and eating disturbances (Heinberg, 1996). Sociocultural approaches to this topic posit that girls and women are exposed to societal biases about beauty, thinness, and messages that emulating societal stereotypes leads to success in relationships, careers, and life in general (Cox, et al., 2011; Heinberg, 1996; Rogers-Wood & Petrie, 2010). Internalization of these societal messages have influences on biological, psychological, and social factors identified in the etiology of body image and maladaptive eating issues (Abood & Mason, 1997; Duncan & Robinson, 2004; Gillen & Lefkowitz, 2012).

A challenge unique to minority women that is embedded in the sociocultural context is societal oppression, both from gender (Brown L., 1989) and racial perspectives (Lee & Soyeon, 2013; Phinney, 1996). There is often additional stress and pressure to measure up to standards other than those associated with the physiological aspects of beauty (Hesse-Biber, Leavy, Quinn, & Zoino, 2006). Moreover, availability of financial resources for African American women influence food choices, access to resources, time available to exercise, and stress (Di Noia et al., 2009; Duncan & Robinson, 2004; Lee & Soyeon, 2013).

### **The Role of Ethnic Identity**

Ethnic identity is utilized to describe one's identification with a broad grouping of people based on race, cultural origin, cultural attitudes, distinguishable values and behaviors, and the societal experiences associated with minority status (Phinney, 1996). The psychological relevance of ethnic identity is especially apparent in consideration of how ethnicity triggers experiences of discrimination, prejudice, economic distress, and disadvantaged political status (Lee & Soyeon, 2013; Phinney, 1996). When conceptualizing the case of R. K., one must consider that African American women are not a homogeneous population (Di Noia, Furst, Park,

& Byrd-Bredbenner, 2009; Hesse-Biber et al., 2010; Lee & Soyeon, 2013). Therefore, ethnic identity varies in importance and strength among African American women (Hesse-Biber et al., 2010; Phinney, 1996). Some African American women may have strong ethnic identities in terms of coherence to traditional cultural values (Jefferson & Stake, 2009), whereas others may identify more strongly with mainstream culture and reject aspects of their ethnic identity (Azibo, Robinson, & Scott-Jones, 2011; Phinney, 1996).

College environments offer African American women exposure to different cultural experiences that may trigger shifts in their ethnic identities (Altabe, 1996). Thus, college-aged women often encounter pivotal time-periods of body image development and exploration (Gillen & Lefkowitz, 2012). African American women in college may experience changes to their ethnic identities according to if they attend a predominately African American college that may reinforce ethnic culture or a different college emphasizing the ideals of the dominating mainstream culture (Altabe, 1996; Baugh, Mullis, Mullis, Hicks, & Peterson, 2010; Hesse et al., 2010).

Duncan and Robinson (2004) analyzed focus group discussions comprised of college-educated, African American women that documented discussions about challenges in negotiating between the two contrasting cultural standards. Women discussed how they encountered Westernized standards of beauty that opposed full-figured body ideals in African American cultures (Duncan & Robinson, 2004).

Surprisingly, research suggests that African American women may be shielded from body image and maladaptive eating issues triggered by Western ideals of beauty (Jefferson & Stake, 2009; Rogers-Wood & Petrie, 2010). In a study of ethnic identity and body image, Baugh et al. (2010) found that increased ethnic identification was associated with greater weight, healthier eating habits, and less vulnerability to eating disorders. In further illustration of this

point, Hesse-Biber et al. (2010) discussed that Black women with a strong sense of racial identity were less likely to internalize Western ideals of thin body types that often lead to body dissatisfaction. Therefore, a strong sense of ethnic identity and cultural support can serve as protective factors from body dissatisfaction (Hesse-Biber et al., 2010; Jefferson & Stake, 2009). Sabik et al. (2010) referred to this perspective as a buffering hypothesis in her study that found that African American women reported higher levels of appearance esteem, as well as lower levels of weight-based contingencies of self-worth and drives for thinness, in comparison to women of other ethnicities. Appearance esteem was positively associated with drive for thinness for African American women who had weight-based contingencies of self-worth or identified with ethnic groups outside of the African American ethnicity (Sabik et al., 2010). Such studies articulate the idea that African American cultures are more approving of larger body types, less affected by societal ideals of thinness, and less susceptible to disordered eating behaviors in comparison to other cultures (Sabik, Cole, & Ward, 2010; Jefferson & Stake, 2009).

If ethnic identity is a protective buffer for African American women, then what does this say about the case of R. K.? The case of R. K. potentially lends itself in support of a different perspective. This contradicting perspective expressed in research literature asserts that body image and disordered eating issues have been erroneously minimized for African American women (Hesse-Biber et al., 2006) and naively conceptualized as issues predominantly affecting White women (Abood & Mason, 1997; Cheney, 2011). Although several studies in research literature seem to conclude that African American women are buffered from body image issues and maladaptive eating concerns (Duncan & Robinson, 2004), an increasing number of studies disagree with this claim (Cheney, 2011; Rogers-Wood & Petrie, 2010). Moreover, studies have suggested that increased internalization of mainstream societal ideals by African American

women leads to psychological disorientation and adoption of culturally oppressive attitudes (Azibo, Robinson, & Scott-Jones, 2011). As a result, African American women may internalize mainstream ideals of thinness that provoke struggles with disordered eating behaviors and distance them from the protective factors of ethnic identity (Cheney, 2011; Flowers et al., 2012).

Body dissatisfaction and maladaptive eating behaviors among African American women are problematic and increasing in prevalence, similar to trends found in mainstream culture (Abood & Mason, 1997; Henrickson, Crowther, & Harrington, 2010). Recent studies have either failed to find ethnic differences in cultural comparison studies (Gillen & Lefkowitz, 2012) or documented converging trends of increasing body image and maladaptive eating disturbances (Rogers-Wood & Petrie, 2010). For example, Atlas et al. (2002) conducted a study to investigate racial differences in eating disorder risk factors and symptoms in a comparison of Caucasian and African American samples, and found evidence for consistencies across race. Additionally, other research suggests that disordered eating patterns in African American women are approaching the levels of pathogenic eating attitudes and behaviors typically reported for White women (Abood & Mason, 1997).

### **Maladaptive Relationships with Food**

African American women who harbor body image dissatisfaction, commonly resort to maladaptive relationships with food to manage perceived body image shortcomings and physical concerns (Duncan & Robinson, 2004; Henrickson, Crowther, & Harrington, 2010; Rogers-Wood & Petrie, 2010). Maladaptive relationships with food can be described as eating to cope with emotions, regulate negative affect, feel rewarded or punished, or as a mode of social gratification (Henrickson et al., 2010; Messer, 1984). Maladaptive relationships with food may lead to eating patterns that feels out of control (Atlas, Smith, Hohlstein, McCarthy, & Kroll, 2002), bingeing and

purging (Corte & Stein, 2000), and overall adherence to unhealthy rules regarding food consumption (Brown et al., 2012; Flowers et al., 2012). Self-imposed food rules that encourage food restriction may result in binge-eating and food preoccupation (Polivy, 1996; Shallcross, 2010). This suggests that maladaptive relationships with food may be a component of R. K.'s complaints that trigger her bingeing behaviors. Severe cases of maladaptive eating may manifest as eating disorders, such as, anorexia nervosa, bulimia nervosa, binge eating disorder, and eating disorders not otherwise specified (American Psychiatric Association, 2013). However, women may exhibit features of eating disorders but lack sufficient psychopathology to be formally classified as eating disorders (Hesse-Biber et al., 2006; Shallcross, 2010).

It is not surprising that classifiable eating disorders have a high comorbidity with body dissatisfaction (Hesse-Biber et al., 2006; Neumark-Sztainer, et al., 2010; Thompson, 1996). However, much is still unknown about the impetus for chronic increases of body image and disordered eating issues that have occurred over the past few decades (Hesse-Biber et al., 2006). Furthermore, African American women's maladaptive relationships with food, which are not necessarily features of formal classifications of eating disorders, remain in need of more attention (Chandler-Laney, et al., 2009; Hesse-Biber et al., 2006).

There is a great deal of overlap between women's maladaptive eating behaviors and features of addictions (Lindsay, Warren, Velasquez, & Lu, 2012). High rates of drug abuse in women are related to weight concerns, and weight loss appears to be a reinforcing side effect of stimulant use (Corte & Stein, 2000; Lindsay et al., 2012). Moreover, attention to body image issues and eating-related concerns is an essential adjunct to substance abuse treatment (Lindsay et al., 2012). Negative consequences of food addiction and maladaptive eating behaviors may include costs associated with related health issues (Rosen, 1996; The Office of Minority Health,

n.d.). Additionally, undesirable strains to interpersonal relationships may result as friends or family members become forced to cope with concerns over their loved ones' struggles with addiction (Worthington, Mazzeo, & Kliewer, 2002).

### **Biopsychosocial Etiology**

Biopsychosocial models that discuss the etiology of body dissatisfaction for women identify links to many factors, including biological, psychological, and social factors (Wojtowicz & von Ranson, 2012).

#### **Biological Factors**

The onset of adolescence for girls is commonly indicated by acute increases in progesterone and estrogen hormonal productions, which are hormones that substantially affect sexuality (Dacey & Travers, 2004). There is no absolute marker for when the age of adolescence ends and early adulthood begins (Dacey & Travers, 2004). Post-menarcheal females commonly experience body dissatisfaction with their changing body size and shape (Dacey & Travers, 2004; Heinberg, 1996), and these feelings of body dissatisfaction often remain quite problematic well into early adulthood (Dittmar, Halliwell, & Ive, 2006). Wojtowicz and von Ranson (2012) surveyed middle-adolescent girls in a sample inclusive of African American girls, and identified high body mass indexes as risk factors for body dissatisfaction. Moreover, African American women tend to have higher body mass indexes in comparison to European American women (Jefferson & Stake, 2009). Nevertheless, many African American girls and women express body image preferences for shapeliness, hips, and good fit of clothing, which are cultural trademarks of attractiveness (Davis, Sbrocco, Odoms-Young, & Smith, 2010).

Young women with higher levels of body dissatisfaction tend towards lower levels of physical activity, poor self-care, and greater difficulties with regulating their eating behaviors

(Klesges et al., 1996; van den Berg & Neuarck-Sztainer, 2007; Wojtowicz & von Ranson, 2012).

Overweight young women with body dissatisfaction are more likely to engage in unhealthy weight management tactics and maladaptive relationships with food when compared to overweight girls and women with body satisfaction (Cheney, 2011; Klos, Esser, & Kessler, 2012).

Maladaptive rules and relationships with food have been linked to cognitive impairments that are triggered just by the mere presence of food (Brown et al., 2012; Tapper & Pothos, 2010). These cognitive impairments can pose difficulties in making judgments regarding food choices and consumption (Di Noia et al, 2009; Tapper & Pothos, 2010).

Jefferson and Stake (2009) highlight that much research about attitudinal aspects of body image have understated the influence of standardized ideals of features other than those related to body weight, such as facial features, skin color, and hair, which also contribute to body satisfaction. Hair is a physiological feature of historical and current significance to African American women (Jefferson & Stake, 2009; Patton, 2006). During years of slavery, hair and skin that resembled Caucasian features were leveraged for survival, where having these features often enabled African American women to work inside their slave owner's house and avoid more strenuous work that may have been assigned to African American women with kinkier hair and darker skin (Patton, 2006). African American women would invest long hours into softening and straightening their hair to emulate Caucasian standards of attractiveness, despite members of the African American ethnicity adamantly advising women against such acculturation to the dominant culture (Azibo, Robinson, & Scott-Jones, 2011; Patton, 2006). For a subset of African American women, deviations from the Western standards of attractiveness in terms of hair may be interpreted as impediments to body image satisfaction (Davis et al., 2010; Patton, 2006).

### **Addressing Biological Factors**

As it relates to biological factors, defining what is a healthy body image and pattern of eating can be a subjective determination (Cheney, 2011; Heinberg, 1996; Henrickson et al., 2010). As in the case of R. K., some women may appear healthy but may have life-threatening body image issues and disordered eating behaviors. Furthermore, some African American women who prefer a fuller body structure may be opposed to dramatic weight loss, but may be open to milder changes to their weight (Di Noia et al., 2009). Due to the subjectivity inherent in gauging healthy body images, clinicians will also need to be mindful not to perpetuate their own biases (Brown L., 1989). Biases about healthy body images and body weights can be covert and undetected, especially for female clinicians who have been subject to similar societal messages and anti-fat attitudes as those experienced by potential clients (Brown L., 1989; Shallcross, 2010). It is best that clinicians be aware of their own body image concerns, socialized beliefs about women and attractiveness, and related biases, prior to engaging in clinical interventions for body image issues with clients (Brown L., 1989; Hesse-Biber et al., 2006; Shallcross, 2010).

Further interventions for body dissatisfaction in African American women can encourage engagement in physical activity or exercise that may help to regulate sensory control of food intake (King, 2013), and prevent health issues associated with unhealthy diets (Di Noia et al., 2009). Barriers may be present that hinder regular exercise routines (Klesges et al., 1996; Rosen, 1996). One barrier may be related to how some African American women may invest significant amounts of time into achieving desired hairstyles (Patton, 2006), as some African American women find particular levels of physical activity threatening to maintaining hairstyle preferences and other aspects of their appearance esteem (Davis et al., 2010; Klesges et al., 1996; Patton, 2006). Clinicians who invite clients to discuss anticipated barriers impeding plans for healthier

lifestyles can better assist clients in incorporating strategies that resonate with cultural values and thinking of ways to accommodate for relevant concerns (Di Noia et al., 2009; Shallcross, 2010).

### **Psychological Factors**

An established perspective in research literature views experiences with toys and media exposure over the developmental lifespan of girls and young women, as sources that powerfully affect their attitudes towards their bodies through its marketing of socially idealized thin body types (Dittmar, Halliwell, & Ive, 2006; Heinberg, 1996). Moreover, research shows that beauty ideals depicted in media negatively impact body satisfaction in adolescent girls and young women, even when they logically recognize that some of the idealized beauty images are unrealistic to achieve (Jefferson & Stake, 2009).

Body dissatisfaction in adolescence has been linked to feelings of inadequacy, low self-esteem, self-harm behaviors and suicide planning (Dacey & Travers, 2004; Wojtowicz & von Ranson, 2012). Body dissatisfaction has also been identified as a risk factor for low self-confidence and depressed moods in young women (Cheney, 2011; Gillen & Lefkowitz, 2012). Many African American women grappling with body dissatisfaction may believe that not being able to reduce their body weight hinders them from better opportunities in their lives (Cox, et al., 2011). For example, McVey et al. (2010) discussed how young women in college environments may be susceptible to unhealthy attitudes and behaviors towards their bodies as they are exposed to more autonomy and adult responsibilities. Additionally, van den Berg, Mond, Eisenberg, Ackard, and Neumark-Sztainer (2010) have noted how low self-esteem and body dissatisfaction early in life have predicted unhealthy weight-control behaviors, psychological distress, and other adverse health outcomes later in life.

Psychological distress tends to accompany eating disturbances (Brown et al., 2012; Cheney, 2011; Cox, et al., 2011). In fact, many African American women may present to therapy for treatment due to concerns with anxiety and stress, rather than for concerns directly related to food behaviors that provoke maladaptive eating behaviors (Shallcross, 2010). Henrickson et al. (2010) conducted a study of African American women's expectancies that eating would manage affect and thinness would lead to life-improvement. They found that African American women who had strong expectancies about eating and thinness tended towards negative relationships between ethnic identity and maladaptive eating patterns (Henrickson, Crowther, & Harrington, 2010). Furthermore, research suggests that distressing characteristics of maladaptive perfectionism are linked to the development disordered eating (Ashby, Kottman, & Schoen, 1998). Therefore, women experiencing distress associated with maladaptive eating may also struggle with maladaptive perfectionism (Brown et al., 2012; Wojtowicz & von Ranson, 2012).

### **Addressing Issues with Psychological Distress**

Clinicians can assist African American women in coping with psychological distress associated with body image dissatisfaction and maladaptive food behaviors (Brown et al., 2012; Davis et al., 2010; Hesse-Biber et al., 2006; Rich & Thomas, 2008). One helpful intervention suggested by Worthington et al. (2002) educates clients about how unforgiveness can act as a detrimental negative emotion, and promotes forgiveness in ways that are consistent with clients' conceptualizations of spirituality. This intervention can be an effective adjunct to evidence-based approaches (Worthington et al., 2002). Another intervention helpful in coping with psychological distress may involve the use of mindfulness practices to help reduce the impact of negative self-statements and judgments (Linehan, 1993; McCarthy, Brack, Brack, & Beaton,

1997; Shallcross, 2010). Moreover, women can also make use of self-soothing practices, such as relaxation activities, maintenance of self-monitoring diaries, body exploration exercises, and healthy dialogues about weight with family members (Carraca, et al., 2011; Neumark-Sztainer, et al., 2010).

Research shows empirical support for the use of cognitive-behavioral practices in the treatment of body image issues and disordered eating (Lindsay et al., 2012; Linehan, 1993; Shallcross, 2010). Consistent with this notion, Di Noia et al. (2009) discussed how raising awareness of links between beliefs and behaviors can help clients to make connections between current dietary behaviors and health outcomes in the future. An application of this intervention in the case of R. K. would involve helping R. K. to increase her awareness of how beliefs and behaviors are connected to her current dietary behaviors and health outcomes. R. K. could be encouraged to explore how her beliefs that her cheeks look fat, trigger her bingeing and purging behaviors (Linehan, 1993). R. K. could further be encouraged to consult with a medical doctor for an exam and bloodwork that may indicate how her current dietary behaviors are provoking negative health outcomes for her life (Shallcross, 2010).

Similarly, cognitive psychology may offer helpful treatment models (McCarthy et al., 1997). An example can be found in McCarthy et al. (1997) in their description of a four-stage model for helping clients to understand and change their appraisal patterns and emotions. The four stages involve a psychoeducational introduction about the links between emotions and appraisal patterns, encouragement for clients to apply the knowledge learned to their own life, facilitation of client's deeper insight into conceptualization adaptive changes, and integration new insights and appraisal flexibility into their repertoire of emotional and behavioral responses (McCarthy et al., 1997).

Additionally, clinicians can utilize a feminist perspective in their approaches to treating body image issues in African American women (Brown L., 1989). A feminist perspective can acknowledge how impetuses for body image and maladaptive eating concerns lie within societal contexts that promote sexism, racism, and other ritualistic perspectives that are obstacles to privilege, power, and healthy self-concepts independent of objectification (Duncan & Robinson, 2004; Heinberg, 1996; Hesse-Biber et al., 2006). Many African American women contend against the privilege and power that Caucasian standards of beauty seem to advertise (Duncan & Robinson, 2004; Lee & Soyeon, 2013; Patton, 2006), which discourage rivaling body image ideals and appropriate relationships with food (Cheney, 2011; Flowers et al., 2012).

Moreover, African American women can be encouraged to utilize tactics that empower them to resist internalizing societal ideals of thinness and disordered eating habits (Baugh et al., 2010; Brown L., 1989; Davis et al., 2010; Flowers et al., 2012; Hesse-Biber et al., 2010). For example, clients can be encouraged to utilize critical thinking skills to investigate the social and personal influences of their body image development, dissect portrayals of idealized body types in the media, and focus on other salient factors in their lives, rather than on the frequently held myth that being thin leads to greater happiness (Cheney, 2011; Cox, et al., 2011; Henrickson et al., 2010).

### **Social Factors**

Particularly for adolescent girls, parental influences play a formative role in girls' development of body image (Corning, Gondoli, Bucchianeri, & Blodgett-Salafia, 2010). Neumark-Sztainer et al. (2010) conducted a study with a sample of 356 adolescent girls, which was inclusive of African American girls. Neumark-Sztainer et al. (2010) found strong associations between girls' body dissatisfaction, disordered eating behaviors, and their reports that they had

been teased by family members about their weight. Moreover, African American women typically progress to hold central roles in their family structures, and have influential roles in the attitudes and behaviors towards food in their households (Di Noia et al., 2009). Additional research shows that discussions about weight specifically from girls' mothers were associated with girls' extreme behavioral attempts at weight control (Cromley, Neumark-Sztainer, Story, & Boutelle, 2010).

Other research studies relevant to the African American population further concur about parental influences on the development of girls' body image satisfaction. First, Corning et al. (2010) studied 31 adolescent girls and their mothers. Researchers found that adolescent girls commonly reported experiencing pressure from their mothers to have a thin body size. Corning et al. (2010) further discussed how mothers who were critical of their own weight and preoccupied with idealized thinness, substantially exacerbated their adolescent daughters' dieting behaviors. Secondly, parental reports of body satisfaction were found to be significant predictors and positively associated with adolescents' reported levels of body satisfaction (Cromley, Neumark-Sztainer, Story, & Boutelle, 2010). Third, Cromley et al. (2010) found that adolescents' episodes of overeating were associated with reports of low family cohesion and adaptability. Lastly, Shallcross (2010) discussed how children observe the way adults' attitudes and behaviors regarding weight and physical appearance, model the behaviors they observe, become influenced by peer pressure, and lose tolerance for different body shapes and sizes as a result of these socialization experiences.

In further consideration of social factors influencing body image development, the role of peer influences can have positive and negative impacts on body satisfaction for young women. Caccavale, Farhat, & Iannotti (2012) conducted a survey regarding social engagement in adoles-

cence, and found that social engagement moderates weight status and body image satisfaction for adolescent girls. Moreover, overweight girls with more social engagement were increasingly likely to have more body satisfaction (Caccavale et al., 2012). Conversely, peer relationships that were characterized by teasing based on body weight and appearance, were exacerbated maladaptive relationships with food and body dissatisfaction for African American women (Abood & Mason, 1997; Quick, McWilliams, & Byrd-Bredbenner, 2013).

For young women, early college years are often a transitory time-period laden with influential factors for further body image development (Gillen & Lefkowitz, 2012). The shift to new people and environments while in college, may provoke changes to African American women's rituals regarding food (Gillen & Lefkowitz, 2012; Hesse-Biber et al., 2010; Jefferson & Stake, 2009). These changes in food consumption may also have implications for women's body image issues and maladaptive relationships with food (Abood & Mason, 1997; Jefferson & Stake, 2009; Juarascio, et al., 2012). Gillen and Lefkowitz (2012) described how peer relationships in college may influence young women's dietary choices, alcohol consumption, and other aspects of self-care. Peer relationships are also influential on women's attitudes towards their bodies, especially as they become more independent of direct adult supervision (Abood & Mason, 1997; Gillen & Lefkowitz, 2012).

Racial identity and level of acculturation for minorities have been identified as powerful influences, especially as girls and women engage in social comparison processes (Baugh et al., 2010; Jefferson & Stake, 2009; Wojtowicz & von Ranson, 2012). Racial identity and body image are profoundly shaped by childhood experiences in family and school environments (Harris, 1995; Hesse-Biber et al., 2010). The diverse factors constituting ethnicity influence the development of body dissatisfaction in complex ways, especially given that standards of beauty

can vary within and according to different ethnicities (Harris, 1995; Jefferson & Stake, 2009). Nevertheless, the impact of publicized mainstream ideals of beauty and thinness is undeniable regardless of ethnicity, and its effects are not confined to any particular chronological age or socioeconomic status (Hesse-Biber et al., 2006; Shallcross, 2010).

### **Sociocultural Resources as Interventions**

A feminist perspective can increase women's awareness of the cognitive dissonance that they may face despite progress in building healthier body images and eating habits, due to societal prejudices that regard body images distant from the thin, Caucasian ideal as unacceptable (Brown L., 1989; Hesse-Biber et al., 2006; Patton, 2006). Moreover, given the heterogeneity of African American women, clinicians should gain knowledge about social influences germane to African American culture, as well as those specific to their individual clients (Di Noia et al., 2009; Shallcross, 2010). For example, these efforts would inform treatment planning for R. K., by enabling the clinician to better understand her sociocultural context outside of therapy (Shallcross, 2010). Resources for this knowledge may include journal articles, relevant texts, and in vivo exposure to aspects of African American culture (Di Noia et al., 2009).

Clinicians can assist women to cope with body dissatisfaction by encouraging them to connect to insulative factors within their sociocultural contexts (Wojtowicz & von Ranson, 2012). Sociocultural resources for support include family, peers, and healthcare professionals, who can assist young women with addressing body image issues and the related adverse consequences comorbid with these issues (Caccavale et al., 2012; Duncan & Robinson, 2004; Rogers-Wood & Petrie, 2010). As illustrated in the case of R. K., teasing from family members regarding body image can pose detrimental effects. Clinicians can assist African American

women to cope with body dissatisfaction by encouraging them to engage in positive familial and peer relations (Caccavale et al., 2012; Gillen & Lefkowitz, 2012; Quick et al., 2013). African American women can be encouraged to develop healthy peer relationships that facilitate body satisfaction and insulate against disordered eating behaviors (Abood & Mason, 1997; Caccavale et al., 2012; Gillen & Lefkowitz, 2012). Additionally, psychoeducational and other support groups can offer emotional support and camaraderie to women struggling with maladaptive food habits may be helpful to African American women (Lindsay et al., 2012; Overeaters Anonymous, Inc., 2013; Rogers-Wood & Petrie, 2010).

Some established sources of support for women struggling with dysfunctional eating behaviors are found in disordered eating support groups on college campuses and surrounding communities (Overeaters Anonymous, Inc., 2013; Lindsay, Warren, Velasquez, & Lu, 2012; Rogers-Wood & Petrie, 2010). An example of a relevant 12-step recovery program is Overeaters Anonymous (OA), which is a 12-step program of recovery for compulsive eating (Overeaters Anonymous, Inc., 2013). OA addresses physical, emotional, and spiritual aspects of maladaptive relationships with food, without affiliation with any particular religious organization or specific philosophies regarding obesity and dieting (Overeaters Anonymous, Inc., 2013). Such recovery programs aim to alleviate symptomology that is at the core of maladaptive eating behaviors, including psychological distress and difficulties with controlling problematic cravings (Corte & Stein, 2000; Lindsay et al., 2012; Polivy, 1996).

Repeated failures to control behaviors despite negative consequences and associated thought preoccupations are descriptive of failed attempts at dietary control (Chandler-Laney, et al., 2009), as well as hallmark characteristics of addictions (Overeaters Anonymous, Inc., 2013; Worthington et al., 2002). Clinicians can assist African American women in coping with

potential interpersonal conflicts, blocks to forgiveness, and other negative repercussions that may have resulted from their maladaptive eating behaviors (Worthington et al., 2002) .

In consideration of the complexity of body image and maladaptive eating concerns, such as those demonstrated by R.K., recommendations for a multi-disciplinary treatment team may be indicated that is inclusive of nutritionists, medical doctors, and consultations with other therapists specializing in consultations on relevant concerns where appropriate (Linehan, 1993; Shallcross, 2010). Moreover, African American women who encounter severe impairment as it relates to body image dissatisfaction and dysfunctional eating may benefit from clinicians' use of psychological instruments to assess body image issues and complications with disordered eating, with respect to ethnicity (Altabe, 1996; Helms, 2007). Psychological instruments utilized should be culturally appropriate to the population (Di Noia et al., 2009).

### **Conclusions**

U. S. society's marginalization of body images that deviate from ideals of thinness and beauty have devastating effects to all women (Hesse-Biber et al., 2006; Juarascio, et al., 2012; Sabik, Cole, & Ward, 2010). Research suggests that African American women who internalize ideals consistent with their African American ethnic identity may rebuke negative effects of mainstream societal messages (Sabik et al., 2010). However, not all African American women are buffered from body image dissatisfaction and maladaptive relationships with food (Abood & Mason, 1997; Rogers-Wood & Petrie, 2010). Body image and maladaptive eating issues have been minimized and the negative consequences of this neglect is evidenced by increased prevalences of eating disorders, disordered eating, and obesity (Abood & Mason, 1997; Rogers-Wood & Petrie, 2010; The Office of Minority Health, n.d.).

Sociocultural theory may assist in explaining the variance seen in the way ethnic identity, body dissatisfaction, and dysfunctional eating converge (Harris, 1995; Heinberg, 1996). A moderate amount of body dissatisfaction can be a motivator for behaviors that help to improve body satisfaction (van den Berg & Neumark-Sztainer, 2007). However, many African-American women struggle with maladaptive levels of body dissatisfaction and disordered eating concerns (Abood & Mason, 1997; Hesse-Biber et al., 2010; Juarascio, et al., 2012; Wojtowicz & von Ranson, 2012).

As illustrated in the referenced case study (Thompson, 1996), clinical interventions for this population should address biopsychosocial factors associated with the development of body image dissatisfaction and maladaptive eating behaviors in order to be most effective (Duncan & Robinson, 2004; Harris, 1995; Thompson, 1996). Addressing body image dissatisfaction and disordered eating may aid in preventing obesity and the many adverse health outcomes associated with maladaptive relationships with food (Caccavale et al., 2012; Corte & Stein, 2000; Flowers, Levesque, & Fischer, 2012). Body image satisfaction has been found to predict less weight gain over time (van den Berg & Neumark-Sztainer, 2007). Also, increased body image satisfaction has been associated with healthier eating behaviors and maintenance of physical activity (van den Berg & Neumark-Sztainer, 2007). Additionally, clinicians can offer women the benefits of psychoeducation to increase their awareness about helpful coping strategies and available resources to assist with body image and maladaptive eating concerns (Rich & Thomas, 2008; Shallcross, 2010).

### **Guiding Questions**

Despite buffering qualities of ethnic identity to African American culture, many African-American women struggle with body dissatisfaction and maladaptive eating concerns (Abood &

Mason, 1997; Rogers-Wood & Petrie, 2010; Wojtowicz & von Ranson, 2012). There is an imperative need to address body dissatisfaction in African American women (Baugh et al., 2010), and educate them about how to maintain healthy body image and dietary habits (Klesges, DeBon, & Meyers, 1996; Rosen, 1996). Several specific research questions were utilized to guide the exploration of this topic with respect to biological, sociological, psychological and cultural theories:

1. What are influences of African American women's concepts of an ideal body image?
2. How do certain biological, sociological, psychological, and cultural experiences affect the development of body dissatisfaction?
3. What factors influence women's relationships with food?
4. What are the implications for African American women's maladaptive eating habits on their health?
5. What are some protective factors that may be associated with better outcomes regarding body satisfaction and eating habits for African American women?
6. How do African American women's identities as ethnic minorities in society influence their attitudes and behaviors towards their body images?
7. How do African American women's identities as ethnic minorities in society influence their attitudes and behaviors as it relates to food and health consciousness?
8. What are some interventions that may be effective in treating women's body image and eating concerns?

### **Review**

The purpose of this article is to utilize a variety of lens, including biological, sociological, psychological, and cultural theories, to explore how body image issues and maladaptive relation-

ships with food are moderated by ethnicity for African American women. This article also provides a review of biopsychosocial factors influencing the development of body dissatisfaction, and features a case illustration woven throughout the article to demonstrate effective uses of the literature for insight and intervention. Recommended clinical interventions for this population address biopsychosocial factors associated with body image dissatisfaction and maladaptive eating behaviors in order to be most effective (Duncan & Robinson, 2004; Harris, 1995; Thompson, 1996).

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## **2 BODY DISSATISFACTION AND MALADAPTIVE RELATIONSHIPS WITH FOOD IN AFRICAN AMERICAN WOMEN: AN EXPLORATION OF IMAGE-DRIVEN AND HEALTH-RELATED INFLUENCES**

Societal stereotypes of beauty can reflect unhealthy ideals of thinness that trigger body dissatisfaction and maladaptive relationships with food for women (Henrickson, Crowther, & Harrington, 2010; Hesse-Biber, Leavy, Quinn, & Zoino, 2006; Rogers-Wood & Petrie, 2010). Western stereotypes of beauty can create cognitive dissonance for African American women when contrasted with body image ideals within African American culture, due to societal prejudices that regard body images distant from the thin, Caucasian ideal as unacceptable (Duncan & Robinson, 2004; Hesse-Biber et al., 2006; Patton, 2006). Another issue affecting African American women involves maladaptive relationships with food and health concerns (Antin & Hunt, 2012; Rogers-Wood & Petrie, 2010). Startling statistics show that obesity rates in the United States are higher for African American women than any other demographic (The Office of Minority Health, n.d.), as well as indicate vulnerability to risk factors for heart disease, diabetes, and high blood pressure (HHS.gov, 2012). Body dissatisfaction and maladaptive eating behaviors among African American women are problematic and increasing in prevalence (Abood & Mason, 1997; Atlas, Smith, Hohlstein, McCarthy, & Kroll, 2002; Henrickson, Crowther, & Harrington, 2010). For instance, the Centers for Disease Control and Prevention (2013) reports that Non-Hispanic blacks have an obesity rate of 49.5%, compared with Mexican Americans (40.4%), Hispanics (39.1%), and non-Hispanic whites (34.3%).

Research suggests that internalization of societal body image ideals can lead to preoccupations with appearance and body dissatisfaction (Juarascio, Forman, Timko, Herbert, Butryn, &

Lowe, 2012). A central focus of the present study was to investigate body dissatisfaction and maladaptive relationships with food as it related to ethnic identity for college-aged African American women. The study further served to investigate motivations for maladaptive relationships with food, as it related to internalization of societal body image ideals and consciousness about health.

Body dissatisfaction represents negative mood and affect relating to an individual's perception and attitude towards her own body size, body parts, and overall body (Dittmar, Halliwell, & Ive, 2006; Flowers, Levesque, & Fischer, 2012; Heinberg, 1996). Moreover, maladaptive relationships with food can be described as using food to cope with emotions, regulate negative affect, feel rewarded or punished, or as a mode of social gratification (Henrickson et al., 2010; Messer, 1984). Maladaptive relationships with food may lead to eating patterns that feel out of control (Atlas et al., 2002), bingeing and purging (Corte & Stein, 2000), and other maladaptive habits regarding the consumption of food (Flowers et al., 2012).

The psychological relevance of ethnic identity as it relates to body dissatisfaction and food habits is especially apparent when the influence of sociocultural determinants are considered (Counihan, 1992; Hesse-Biber et al., 2006; Messer, 1984). Ethnicity provokes experiences of discrimination, prejudice, economic distress, and disadvantaged political status (Counihan, 1992; Lee & Soyeon, 2013). These factors influence the familiarity, affordability, and availability of healthy food choices (Antin & Hunt, 2012; Di Noia, Furst, Park, & Byrd-Bredbenner, 2009; Lucan, Barg, Karasz, Palmer, & Long, 2012). Ethnic identity is utilized to describe one's identification with a broad grouping of people based on race, cultural origin, cultural attitudes, distinguishable values and behaviors, and the societal experiences associated with minority status (Cokley, 2007; Phinney, 1996). Moreover, African American women

commonly utilize food choice to communicate values regarding ethnic identity (Antin & Hunt, 2012).

Sociocultural factors of ethnic identity influence what body images become ideally desirable and impacts the susceptibility to diet-related illnesses (Messer, 1984; Shah, Adams-Huet, Elston, Hubbard, & Carson, 2010). Many female minorities find themselves in ethnically diverse contexts that communicate disparate standards for the ideal body appearance and approaches to food (Duncan & Robinson, 2004; Flowers et al., 2012). Sociocultural approaches to this issue posit that girls and women are exposed to societal biases about food, beauty, thinness, and messages which purport that women need to emulate these societal stereotypes in order to have success in relationships, careers, and life in general (Capodilupo & Kim, 2013; Heinberg, 1996). Consistent with sociocultural theory, internalization of these societal messages have stigmatizing influences on biological, psychological, and social factors that encompass the etiology of body image and maladaptive eating issues (Gillen & Lefkowitz, 2012; Hesse-Biber et al., 2006).

Although some researchers have suggested that African American women may be buffered from body image issues and eating disturbances triggered by Westernized beauty ideals through identification with African American ethnicity (Abood & Mason, 1997; Sabik et al., 2010), this buffering hypothesis may have been overstated (Abood & Mason, 1997; Capodilupo & Kim, 2013). African American women are not a homogeneous population (Harris, 1995; Hesse-Biber et al., 2010; Lee & Soyeon, 2013). Some African American women may have strong identification with African American culture and traditional rituals regarding food (Abood & Mason, 1997; Bowers, 2009); whereas others may internalize mainstream culture and reject

aspects that characterize the African American ethnic identity (Ristovski-Slijepcevic, Bell, Chapman, & Beagan, 2010; Rogers-Wood & Petrie, 2010).

Likewise, identification with African American ethnicity influences commitment to traditional food choices and habits that some women may condone as satiating and acceptable or reject as unhealthy and fat-saturated (Antin & Hunt, 2012; Bowers, 2009). King (2013) discussed that physiological mechanisms for regulating food intake only account for approximately 14% of the variance in human's food intake and environmental factors account for 86% or greater. Maladaptive relationships with food may be moderated by ethnic identity (Rogers-Wood & Petrie, 2010), and prompted out of concerns for body image ideals (Capodilupo & Kim, 2013) or triggered by concerns related to health (Bowers, 2009; Rich & Thomas, 2008). Nevertheless, both may be a concern for African American women (Duncan & Robinson, 2004).

### **Body Image Ideals as Motivation**

African American women may internalize mainstream ideals of beauty and develop culturally oppressive attitudes that provoke body dissatisfaction and maladaptive behaviors regarding food (Cheney, 2011; Counihan, 1992; Hesse-Biber et al., 2010). Moreover, maladaptive relationships with food are often maintained as a means of managing body image (Chandler-Laney, et al., 2009; Dutton, Martin, & Brantley, 2004). The following are two detailed examples of studies that have examined body dissatisfaction and maladaptive relationships with food as it relates to African American women.

The first example is found in a study of African American and White women in college. In this study conducted by Abood and Mason (1997), participants completed the Eating Attitudes Test (EAT-26), the Body Dissatisfaction Subscale (BDS), and supplementary questionnaires.

Abood and Mason (1997) found that African American women and White women reported scores on the EAT-26 that indicated a general increase in disordered eating. African American women's scores indicated increases which approached the levels of pathogenic eating attitudes and behaviors typically reported for White women in previous research (Abood & Mason, 1997). Specifically, 50% of White women and 40% of African American women reported being terrified about being overweight (Abood & Mason, 1997). Even though African American women reported more positive body image relative to White women, African American women in their study reported usages of diet pills, laxatives, and bingeing urges that were similar to those utilized by White women to control weight or purge food eaten (Abood & Mason, 1997).

Secondly, in a study by Rogers-Wood and Petrie (2010), researchers explored body dissatisfaction, ethnic identity and disordered eating in a sample of African American women in their undergraduate years of college. Rogers-Wood and Petrie found that ethnic identity was inversely related to internalization of societal pressures for thinness, and societal pressures for thinness was related to greater concerns with body image. Moreover, internalization of societal pressures for thinness and body image concerns were associated with disordered eating behaviors for women who identified as African American (Rogers-Wood & Petrie, 2010). Thus, Rogers-Wood and Petrie (2010) reflect findings consistent with other research literature stating that African American women who harbor body image dissatisfaction, commonly resort to maladaptive relationships with food to manage perceived body image shortcomings .

### **Health-Related Concerns as Motivation**

Body dissatisfaction and maladaptive relationships with food may occur for many African American women attempting to be conscious of the effects of obesity and other health-related issues (James, 2013; Rich & Thomas, 2008). As African American women progress into

their college-aged years, body mass indexes tend to increase (Baugh et al., 2010; Jefferson & Stake, 2009; Wojtowicz & von Ranson, 2012). Body mass indexes may especially increase during freshman years of college (Wojtowicz & von Ranson, 2012). Young women with lower levels of body satisfaction tend towards lower levels of physical activity, poor self-care, and greater difficulties with regulating their eating behaviors (van den Berg & Neukirch-Sztainer, 2007; Wojtowicz & von Ranson, 2012). Such a cycle of low body satisfaction and maladaptive eating habits can be quite pervasive (Rogers-Wood & Petrie, 2010; Talleyrand, 2012), and prompt medical issues (James, 2013; Muenig, 2008).

Obesity is considered a pandemic (King, 2013; Ristovski-Slijepcevic et al., 2010). Statistics reflect that four out of five African American women are obese or overweight (The Office of Minority Health, n.d.). Moreover, body fat distributed in the abdominal area in visceral adipose tissue is associated with increased risks of cardiovascular medical issues (Kurth et al., 2012; Muenig, 2008; Vines et al., 2007). African American women have high morbidity and mortality to heart disease, diabetes, and high blood pressure (HHS.gov, 2012; Vines et al., 2007). Diet-induced obesity and diet-related diseases are linked to food habits laden with cholesterol, refined carbohydrates, sodium, and saturated and trans fats (Gans, et al., 2009; Lucan et al., 2012; Ryan, Woods, & Seeley, 2012), which are notoriously associated with African American culture in over-proportioned food servings (Gans, et al., 2009; Shah et al., 2010).

Such health concerns may have influenced efforts among the African American ethnic group to be more cognizant of health-related information (Rich & Thomas, 2008). In a study illustrating body image and health-related concerns, Duncan and Robinson (2004) analyzed focus group discussions comprised of college-educated, African American women discussing body ideals, exercise, and fitness. Women discussed how they encountered Westernized standards of

beauty that opposed full-figured body ideals in African American cultures, as well as discussed concerns that maintaining full-figured bodies may facilitate vulnerability to diseases associated with obesity (Duncan & Robinson, 2004). Many African American women attempt to diet for health-related reasons (James, 2013), but may encounter difficulties changing the adiposities their bodies have become accustomed to sustaining (Ryan et al., 2012). Their counterproductive dieting behaviors can result in body dissatisfaction and exacerbate maladaptive food behaviors (Chandler-Laney et al., 2009). Although maladaptive food behaviors may be an issue for African American women who either tend to restrict or to overeat food (Shallcross, 2010); researchers have found that overeating and binge eating behaviors are most problematic for African American women (Flowers et al., 2012; Talleyrand, 2012).

African American women's maladaptive food behaviors, which are not necessarily features of formal classifications of eating disorders, remain in need of more attention (Chandler-Laney et al., 2009; Hesse-Biber et al., 2006). Therefore, a goal of this study was to address the scarcity in research about the motivations for maladaptive food behaviors and body dissatisfaction for African American women (Duncan & Robinson, 2004; Dutton et al., 2004; Shah et al., 2010). It further included specific measures of body mass and waist circumferences as indicators of risks for cardiovascular health concerns.

The present study explored four research questions. First, it was questioned if maladaptive food behaviors would be associated with body dissatisfaction. Consistent with existing literature (Rogers-Wood & Petrie, 2010), it was hypothesized that there would be a negative relationship between maladaptive eating and body satisfaction. Second, I predicted that women's concerns or emphases on body appearance would be inversely related to their health consciousness. Moreover, research suggests that ethnic identity may function as a moderator in relation to Afri-

can American women's eating attitudes and body image concerns (Henrickson et al., 2010; Watson et al., 2014). Traditional cultural approaches to food are associated with strong identification with African American ethnicity (Bowers, 2009; Gans, et al., 2009; Messer, 1984); whereas weak identification with African American culture is associated with emulation of mainstream ideals regarding beauty and food (Flowers, Levesque, & Fischer, 2012; Rogers-Wood & Petrie, 2010). For the third research question, I hypothesized that ethnic identity would moderate the relationship between maladaptive relationships with food and concerns associated with health. Accordingly, a fourth hypothesis explored if ethnic identity would moderate the relationship between maladaptive relationships with food and body image concerns.

## **Methodology**

### *Participants*

Women who self-identified as African American women between the ages of 18 to 35 who were attending college at a southeastern university, completed an on-line survey regarding their opinions about African American culture, body image, and health-related topics. College students from undergraduate and graduate programs were invited to participate in the study through an on-line website where students can participate in research studies for research experience and/or course credits. Participants who reported being pregnant at the time of the study were excluded from the study. In order to encourage participation, particular attention was placed on documenting efforts to protect confidentiality of participants, clearly indicating the study's intent in the informed consent, and disclosing the researcher's ethnic identity in the informed consent (Coker, Huang, Kashubeck-West, 2009). Additionally, contact information was provided for participants to ask questions or communicate concerns (Coker et al., 2009).

### *Instruments*

Participants were asked to provide demographic information, including ethnic identity, age, socioeconomic status, level of education, health-related issues, student status, and graduation date. Additionally, participants were asked to provide their weight in pounds, waist circumference in inches, and height in inches. These data were utilized by the researcher to calculate individual body mass indexes (BMI). The BMI classification tool has been used in previous research to classify adults as underweight (< 18.5), normal weight (18.5-24.99), overweight (25-29.99), obese (30-39.9), and extremely obese (>40) (Sabik et al., 2010; National Institutes of Health, 2013).

The **Multigroup Ethnic Identity Measure- Revised (MEIM-R)** is a 6-item, self-report measure of ethnic identity that assesses ethnic group identity along the two dimensions of exploration and commitment (Phinney, 1992; Phinney & Ong, 2007). The 3-item Ethnic Identity Search (Exploration) assesses developmental and cognitive components of ethnic identity (Henrickson et al., 2010; Phinney, 1992; Phinney, 2007). The 3-item Affirmation, Belonging, and Commitment (Commitment) subscale assesses affective components in terms of the sense of commitment and belonging to an ethnic group (Phinney, 1992; Phinney & Ong, 2007). Consistent with Phinney's (1996) acknowledgement that late adolescence and young adulthood are typical time periods of ethnic identity development, the MEIM is appropriate for use with adolescents and adults (Avery et al., 2007; Phinney, 1992; Henrickson et al., 2010; Rogers-Wood & Petrie, 2010). Responses to items on the MEIM are structured utilizing a 5-point Likert-type scale ranging from "strongly disagree" to "strongly agree" (Phinney & Ong, 2007). An example item reads, "I have a strong sense of belonging to my own ethnic group" (Phinney, 1992;

Phinney & Ong, 2007). Total scores are computed by summing individual items and calculating the mean, with higher scores indicating a stronger ethnic identity (Phinney, 1992).

The original version of the MEIM consisted of 20 items (Phinney, 1992). However, results from exploratory factor analyses revealed that the 6-item subscale assessing Other Group Orientation served as a distinct factor (Phinney & Ong, 2007; Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya, Jr., 2003). Two additional items were removed from the measure after exploratory and confirmatory factor analyses were deemed as not fitting the model (Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999). Further research by Phinney and Ong (2007) developed and tested the 6-item version of the instrument that was utilized in the current study.

The MEIM-R is considered a psychometrically and theoretically sound instrument for use with minority women (Yoon, 2011), and the reliability and validity for the MEIM have been well demonstrated (Avery et al., 2007; Helms, 2007; Ponterotto et al., 2003). Yoon (2011) empirically examined the MEIM-R and reported Cronbach's alphas of .91 (Exploration) and .84 (Commitment). Moreover, Phinney and Ong (2007) discussed psychometric results found in their own unpublished work in 2006, which suggested that a revision of the MEIM yielded .83 (Exploration) and .89 (Commitment) Cronbach's alphas. The MEIM has also yielded acceptable concurrent validity as it relates to multiple measures, including measures of psychological well-being (Roberts et al., 1999) and racial identity (Yoon, 2011). Particularly, Yoon (2011) explored construct validity for the MEIM-R and found comparative fit indices yielded values ranging from .97 to .98, where values of .95 or greater were considered optimal.

The **Eating Attitudes Test (EAT-26)** is a 26-item questionnaire forming three subscales that measure eating attitudes and behaviors in terms of dieting, bulimia and food preoccupation, and oral control (Garner, Olmstead, Bohr, & Garfinkel, 1982). The EAT-26 utilizes a 6-point

Likert scale response format and total scores ranging from 0 to 78, where higher total scores indicate greater levels of eating pathology (Garner et al., 1982; Rich & Thomas, 2008). The questionnaire prompts the participant to respond to items such as, *‘I am terrified about being overweight’* and *‘I find myself preoccupied by food.’* Rogers-Wood and Petrie (2010) utilized the EAT-26 with a sample of African American female undergraduates, and reported a Cronbach’s alpha of .72. This instrument was preferred as a measure of maladaptive relationships with food or maladaptive eating for the current study because of the subscales for bulimia (Garner et al., 1982), Research suggests that bulimia nervosa is a highly prevalent type of eating disorder in African American women (American Psychiatric Association, 2013; Flowers et al., 2012).

It is important to underscore that research indicates that the EAT-26 is related to a broader eating disordered symptomatology (Garner et al., 1982; Henrickson et al., 2010), rather than limited to focuses on societal thin-ideals and dieting behaviors that typically reinforce racial stereotypes about eating disorder prevalences (Kelly et al., 2011). Although Kelly et al. (2011) questions if the EAT-26 assesses equivalent constructs in White and Black women, researchers discuss how conclusions about this measure should be interpreted with caution due to the less than sufficient sample of Black women completing the measure than is recommended for confirmatory factor analyses. Nevertheless, research studies show that the EAT-26 has been often utilized with African American women (Abood & Mason, 1997; Henrickson et al., 2010).

Research has documented the reliability and validity of the EAT-26 (Abood & Mason, 1997; Garner et al., 1982; Rich & Thomas, 2008). Surprisingly, Kelly et al. (2011) discussed various studies that demonstrated adequate internal consistency for the EAT-26. Mazzeo (1999) reported a Cronbach’s alpha of .91, and .86 for a 3-week test-retest reliability. Henrickson et al. (2010) utilized the EAT-40 with a sample of African American women, and found internal con-

sistency at an acceptable level ( $\alpha = .80$ ). The EAT-40, which is the longer version of the EAT-26, is highly correlated ( $r = 0.98$ ) with the EAT-26 (Garner et al., 1982). Additionally, the reliability of the EAT-26 has been reported as adequate ( $\alpha = .83$ ) in its use with a college sample of women (Juarascio et al., 2012). Rogers-Wood and Petrie (2010) also utilized the EAT-26 and yielded a Cronbach's alpha of .72. Furthermore, the validity of the EAT-26 has been demonstrated in its correlation with clinical diagnoses of disordered eating (Kelly et al., 2011).

The full version of the **Multidimensional Body Self-Relations Questionnaire (MBSRQ)** is a 69-item instrument consisting of 10 subscales that measure the three somatic domains of Appearance, Fitness, and Health/Illness (Cash, 2000; Harris, 1995). The 10 subscales assess Appearance Evaluation and Orientation, Fitness Evaluation and Orientation, Health Evaluation and Orientation, Illness Orientation, Overweight Preoccupation, Self-Classified Weight, and the Body Areas Satisfaction Scale (BASS) (Cash, 2000). A sample item from the Appearance Evaluation subscale reads, "I like the way I look without my clothes on." A sample item from the Health Orientation subscale reads, "I make no special effort to eat a balanced and nutritious diet."

Four subscales were utilized for the purposes of the current study. These four subscales were Appearance Evaluation, Appearance Orientation, Health Evaluation, and Health Orientation. The 7-item Appearance Evaluation (AE) subscale assessed the participant's evaluation of overall body image attractiveness or unattractiveness, where high scores indicate body image satisfaction. The 12-item Appearance Orientation (AO) subscale assessed cognitive and behavioral investment into appearance. High scores on this scale indicate high importance and concerns about appearance. The 6-item Health Evaluation (HE) subscale assessed feelings regarding physical health and freedom from physical illness, where high scores indicate reports of good

health. Lastly, the 8-item Health Orientation (HO) subscale assessed the extent of investment in a physically healthy lifestyle. High scores on this scale indicate efforts towards health consciousness.

Cash (2000) further details how the MBSRQ utilizes a 5-point Likert scale. For example, the AE and AO subscales utilize a 5-point scale, with 1 being “very dissatisfied” and 5 being “very satisfied”. Item responses are averaged together to form a composite score, where lower scores indicate more dissatisfaction. The MBSRQ is appropriate for use with adults and adolescents beginning at 15 years of age (Cash, 2000). Research studies show that subscales of the MBSRQ have often been utilized with college-aged African American women (Harris, 1995; Flowers et al., 2012; Gillen & Lefkowitz, 2012).

Research has also documented the reliability and validity of the MBSRQ (Flowers et al., 2012; Gillen & Lefkowitz, 2012; Kelly et al., 2011). Kashubeck-West et al. (2013), investigated the reliability and validity of MBRSQ subscales for use with African American women. Although Kashubeck-West et al. found evidence for reliability, discriminant validity, and partial convergent validity, they questioned if the Appearance Orientation subscale applied to their sample of African American women in the same way the instrument measured orientation in dominant cultures. Similarly, Kelly et al. (2011) evaluated the reliability and construct validity of the Appearance Evaluation subscale for use with African American women. Kelly et al. (2011) found evidence for factorial invariance across groups of White women and Black women. This suggests that the subscale assesses equivalent constructs across race or ethnicity. It should be noted that Kashubeck-West et al. (2013) advocate that there is no single approach to conducting research with African American women, and they recommend a strategy of continuing to ex-

amine the psychometric properties of body image measures for use with African American women to better refine the measures.

Nevertheless, Cash (2000) reports internal consistencies in the instrument's use with females with Cronbach's alphas of .88, .85, .83, and .78, for the AE, AO, HE, and HO subscales, respectively. Similarly, Gillen & Lefkowitz (2012) utilized AE and AO subscales in their study, which yielded alphas ranging between .88 and .90 for AE, and between .87 and .88 for AO. MBSRQ scores have also demonstrated stability when used with female samples, as indicated by 1-month test-retest reliabilities of .91, .90, .79, and .85, for the AE, AO, HE, and HO subscales, respectively. Furthermore, the MBSRQ subscales have demonstrated convergent validity with the Eating Disorder Inventory Body Dissatisfaction and Drives for Thinness subscales (Kelly et al., 2012) and concurrent validity with the Body Image Disturbance Questionnaire (Cash, Phillips, Santos, & Hrabosky, 2004).

### *Procedure*

Prior to beginning the study, approval was first obtained from the Institutional Review Board to conduct the study. Then, African American women attending a college were recruited to participate in the study through an online database of research studies. This online database functions to provide undergraduate students lists of various opportunities to participate in research for research experience and/or course credits. Research shows that African American women in college may experience changes to their ethnic identities according to whether they attend a predominately African American college that may reinforce ethnic culture or a different college emphasizing the ideals of the dominating mainstream culture (Altabe, 1996; Baugh, Mullis, Mullis, Hicks, & Peterson, 2010; Hesse et al., 2010). Particular attention was given to selecting African American women who were currently a part of the ethnically diverse college

population of one specific southeastern university. This was done to facilitate greater homogeneity in the sample from this perspective. Consents from participants were obtained that indicated the participants' understanding of and agreement with the study's procedures and requirements (Rich & Thomas, 2008). Participants were offered one research credit towards a course requirement (Henrickson et al., 2010).

In addition to consents, participants were asked to provide demographic information. Next, participants were asked to complete questionnaires comprised of the MEIM (Henrickson et al., 2010; Phinney, 1992), EAT-26 (Garner et al., 1982; Rogers-Wood & Petrie, 2010), and MBSRQ (Cash, 2000) instruments. Paper versions were made available to participants as an alternative to computerized versions in order to accommodate needs for any specific version preferences from participants; however, there were no requests for paper versions.

As demonstrated in previous studies (Sabik et al., 2010; Schuler et al., 2008; Rich & Thomas, 2008), measures of waist circumference, body weight, and height, were utilized to assess actual body structure, as well as to assess indicators for cardiovascular health risk factors. For participants who did not have access to a tape measure, tape measures were available in a designated area identified in the informed consent forms. Participants were further instructed on accurate placement and reading of the tape measure around their own waists, with the tape measure placed around the smallest point of the waist using the umbilicus as a reference point (Vines et al., 2007). Waist circumference measurements were recorded in inches to measure abdominal obesity or central adiposity, as classified by the National Institutes of Health division of the U.S. Department of Health and Human Services (National Institutes of Health, 2013). Waist circumference is more sensitive as an indicator of potential health risks associated with being overweight and/or obese for women when compared to only the use of body mass index as

an indicator (Kurth, et al., 2012). As aforementioned, body fat distributed in the abdominal area in visceral adipose tissue, is associated with increased risks of cardiovascular medical issues (Kurth et al., 2012; Muenig, 2008; Vines et al., 2007).

Standardized categories classifying abdominal fat distribution through waist circumference measures and overall body fat through body mass index (BMI), combine to create reliable indicators of how a person's body composition translates into potential health risks (Hickson et al., 2012; National Institutes of Health, 2013). Accordingly, the next step was to calculate BMI for the participants utilizing their weights and heights in order to measure overall adiposity. Participants reported their own body weights and heights. This has been a well-utilized procedure for collecting anthropometric data (Henrickson et al., 2010; Schuler, et al., 2008).

## **Results**

### *Preliminary Analyses*

A total of 253 respondents attempted the survey. I utilized Statistical Package for the Social Sciences (SPSS) version 21 to analyze data. Prior to testing the study's hypotheses, the data were screened for cases meeting exclusionary criteria, outliers, and missing data. There were 51 respondents who met exclusionary criteria. Data from respondents that met exclusionary criteria of identifying as a gender other than female, an ethnicity not inclusive of African American or Black race, not between the targeted age range, or pregnant, were excluded from the analyses and removed. Next, 13 cases were trimmed which had more than 20% of values missing from the survey. For the remaining 189 cases, the retained missing values accounted for .383% of the data, which affected 13.30% (25 respondents) of the cases.

In order to analyze the nature of the missing data, data were examined utilizing the missing completely at random (MCAR) test (Little, 1988). Results of the MCAR test suggested that data were missing at random,  $\chi^2(1903) = 1978.86, p = .11$ . A multiple imputation method was applied to the data set in order to correct for remaining missing values across cases (Ser, 2012). Multiple imputations were utilized to predict missing values for all variables with the exception demographics variables (Yuan, 2014). There were five imputations made across all cases for missing values based upon existing values from other variables. The fifth imputed data set were utilized for the purpose of data analyses (Watson, Ancis, White, & Nazari, 2013; Yuan, 2014).

Data were analyzed for potential univariate and multivariate outliers. There were three potential outliers identified. After carefully reviewing the data, it was determined that two of these values were appropriate to their respective cases. One problematic outlier with a value 4.63 standard deviations below the mean was found for the variable measuring the responses for the Health Evaluation scale (Stevens, 2007). This outlier was determined to be due to typographical errors or omissions from the respondent. Winsorization was used to reduce biasing effects of this outlier on statistical analyses, by replacing the value with the mean for the health evaluation variable (Shete et al., 2004).

Further analyses were performed to test the assumptions of multiple regressions (Minium, Clarke, & Coladarci, 1999; Stevens, 2007). Data were screened for normal distributions, linearity, homoscedasticity, and multicollinearity (Osborne & Waters, 2002; Stevens, 2007), particularly as it related to two hypotheses (hypotheses 2 and 3) that would utilize multiple regression analyses. The Durbin-Watson statistics for hypothesis 2 (1.999) and hypothesis 3 (1.880) suggested that the assumption of independent residuals was valid, as values within the range of 1.5 to 2.5 suggest that there are no meaningful serial correlations. Inspections of Tolerance calcula-

tions, data plots and P-P plots also suggested that assumptions were met. Particularly as it relates to multivariate normality, Cook's Distance criterion for the second hypothesis ( $D > 4/188 = .226$ ) and third hypothesis ( $D > 4/188 = .216$ ) were acceptable. During the initial conceptualization of the hypotheses for this study, the a priori total interaction effect estimated was a medium effect size ( $R = .15$ ) given a sample of at least 119 participants and an alpha level of at least .05 (Cohen, 1992). A larger effect size would be expected for a sample size of 200 and greater.

### *Analyses*

Participants indicated their current highest level of education completed as high school (53%), technical/trade or vocational training (.005%), associate degree (22%), undergraduate degree (22%), graduate degree (.005%), or post-graduate work (.02%). Basic descriptive analyses were computed for other demographic data (see Table 1).

**Table 1.** Means, Standard Deviations, and Range Among Variables

	<i>M</i>	<i>SD</i>	Range
1 Age	22.87	3.925	19-35
2 BMI	26.5804	6.933	16.64-56.69
3 Waist Circumference	30.83	6.566	14-56
4 Appearance Evaluation	3.6114	0.869	1-5
5 Appearance Orientation	3.3029	0.486	1.58-4.58
6 Health Evaluation	3.2663	0.485	1.67-4.67
7 Health Orientation	3.3612	0.548	1.58-4.75
8 MEIM-R	2.6665	0.932	1-5
9 EAT-26	10.3968	9.003	0-52

*Note.* BMI = Body Mass Index; Appearance Evaluation, Appearance Orientation, Health Evaluation, and Health Orientation = subscales of the Multidimensional Body Self-Relations Questionnaire (MBSRQ); MEIM-R = Multigroup Ethnic Identity Measure-Revised; EAT-26 = Eating Attitudes Test-26.

Table 2 displays frequencies and percentages by body mass index. Although there was 22.8% of the sample with waist circumferences indicative of high risk for health concerns, demographic variables regarding health described a sample relatively free of medical conditions. Table 3 displays the frequencies and percentages by waist category.

**Table 2.** *Frequencies and Percentages by Body Mass Index*

BMI Category	Frequency	Percent	Cumulative Percent
Underweight	5	2.6	2.6
Normal	88	46.6	49.2
Overweight	59	31.2	80.4
Obesity	29	15.3	95.8
Extreme Obesity	8	4.2	
Total	189	100	100

**Table 3.** *Frequencies and Percentages by Waist Category*

Waist Category	Frequency	Percent	Cumulative Percent
Below 35 inches	140	74.1	77.2
Above 35.01 inches	43	22.8	3.2
Missing Data	6	3.2	
Total	189	100	100

*Note.* Below 35 inches indicates low potential for health risks, while above 35.01 inches indicates high potential for health risks.

The sample was comprised of 93.1% of participants indicating no difficulties with minor medical conditions and 91.5% indicating no difficulties with any major medical conditions. Four participants endorsed a history of a formally classifiable eating disorder. Specifically, two participants reported bulimia, one reported anorexia, and one reported difficulties “eating too much”.

The Health Evaluation subscale was utilized as a way to quantitatively examine participants' reports about their health in addition to the dichotomous 'yes-no' questions about the presence of minor and chronic medical conditions. Participants' reports of good health overall were congruent with their reports on dichotomous demographic questions, with 87% of scores being above the neutral mid-point of the 5-point Likert scale. Despite having reasonable inter-item correlations between certain items of the scale (Cronbach's alphas as high as .52 and .60), data from the Health Evaluation scale were excluded from analyses for hypotheses testing due to its overall low reliability (Cronbach's  $\alpha = .13$ ). Instead, data regarding health consciousness were utilized in order to focus on participants' cognitive and behavioral focuses on health.

### *Correlations*

Correlations and coefficient alphas for variables were examined to provide an idea of group characteristics and trends among the variables (see Table 4). Whereas waist circumference was a variable initially conceptualized as being part of the equations for hypotheses testing, it was excluded from analyses due to low, insignificant correlation with health consciousness ( $r(187) = -.080, p > .05$ ) and insignificant contributions to regression equation models for the second and third hypotheses ( $p = .7881$  and  $.3301$ , respectively). As waist circumference is a more sensitive indicator of potential health risks than body mass indexes (Kurth et al., 2012), the low contributions of waist circumference were likely influenced by the reported overall good health of the sample. Correlations are displayed in Table 4.

For Hypothesis 1, I predicted that maladaptive relationships with food would be negatively associated with body satisfaction. To test this hypothesis, I conducted Pearson's  $r$  correlation coefficients between maladaptive relationships with food and two constructs regarding body image appearance. Negative correlations between maladaptive eating and body image satisfaction

were significant ( $r(187) = -.150, p < .05$ ). Significant correlations were also found between maladaptive eating and appearance concerns as indicated by cognitive-behavioral investments into appearance ( $r(187) = .163, p < .05$ ). These data suggest that maladaptive eating tends to increase as perceived overall body image satisfaction decreases and as cognitive-behavioral concerns about appearance increase.

**Table 4.** *Correlations among Variables*

	1	2	3	4	5	6
BMI						
Body Image	-.401**	(.90)				
Appearance Concerns	-.002	.146*	(.62)			
Health						
Consciousness	-.023	.418**	.261**	(.75)		
Ethnic Identification	-.058	-.169*	-.098	-.282**	(.90)	
Maladaptive Eating	.052	-.150*	.163*	.032	-.014	(.83)

*Note.* Alpha coefficients are in parentheses on the diagonal of the correlation matrix. BMI = Body Mass Index; Body Image = Appearance Evaluation subscale of the Multidimensional Body Self-Relations Questionnaire (MBSRQ); Appearance Concerns = Appearance Orientation subscale of the MBSRQ; Health Consciousness = Health Orientation subscale of the MBSRQ; Ethnic Identity = Multigroup Ethnic Identity Measure-Revised (MEIM-R); Maladaptive Eating = Eating Attitudes Test-26 (EAT-26).

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

For Hypothesis 2, I predicted an inverse relationship between body image satisfaction or concerns for appearance and health consciousness. The correlations between variables did not support this hypothesis. There were positive relationships between the variables, which suggested that body image satisfaction and appearance concerns were positively associated with health satisfaction and health consciousness (see Table 4). This suggests that women's body satisfaction and concerns about appearance increase as their health consciousness increases.

There were several other correlations among the data relevant to the third and fourth hypotheses, which were examined further in regression analyses. Data showed an inverse relationship between body image satisfaction and BMI ( $r(187) = -.401, p < .01$ ). This suggests that body image satisfaction tends to decrease as body mass increases. Correlational data for the third hypothesis revealed an inverse relationship between women's levels of ethnic identification with African American culture and health consciousness ( $r(187) = -.282, p < .01$ ), suggesting that higher levels of ethnic identity are associated with lower levels of health consciousness. Correlations for the fourth hypothesis revealed an inverse relationship between body image satisfaction and women's levels of ethnic identification ( $r(187) = -.169, p < .05$ ), suggesting that higher levels of ethnic identity were associated with lower levels of body image satisfaction. There was no significant relationship found between levels of ethnic identification and maladaptive eating. *Moderation Analyses*

For Hypothesis 3, I predicted that women's levels of ethnic identification with African American culture would moderate the relationship between maladaptive relationships with food and their health-related concerns. This hypothesis was tested using the PROCESS computational tool to conduct regression analyses (Hayes, 2014). Frazier, Tix and Barron (2004) recommend that variables in a regression model should be guided by theory to better maximize power of tests for moderation effects. Congruent with biopsychosocial theoretical perspectives that there is an association between ethnic identification and food relationships (Flowers et al., 2012; Henrickson et al., 2010), ethnic identity was selected as a moderator variable in the regression equation. Also from a biopsychosocial theoretical perspective, body mass index (BMI) and body image evaluation were included as covariates. It was predicted that utilizing women's BMI and body image evaluation as covariates would strengthen the regression equation by accounting for

more of the variance associated with the constructs, particularly given the relationship between maladaptive eating and body image satisfaction ( $r(187) = -.150, p < .05$ ) and the significant relationship between body image satisfaction and BMI ( $r(187) = -.401, p < .01$ ) (Aiken & West, 1991; Frazier et al.; 2004). Therefore, I tested a model in which health consciousness was regressed on maladaptive relationships with food [HO x EAT-26 x MEIM-R x BMI x AE]. To aid interpretation, predictor variables were centered by subtracting the mean for each respective variable separately (Aiken & West, 1991). Results are reported in Table 5.

**Table 5.** *Regression Analysis Summary for Health Consciousness and Ethnic Identity Regressing on Maladaptive Eating*

Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Ethnic Identification	.037	.122	.302	.762
Health Consciousness	.199	.110	1.797	.074*
BMI	-.041	.103	-.399	.690
Body Image	-.364	.130	-2.809	.005**
Maladaptive Eating x Ethnic Identification	-.049	.017	-2.871	.005**

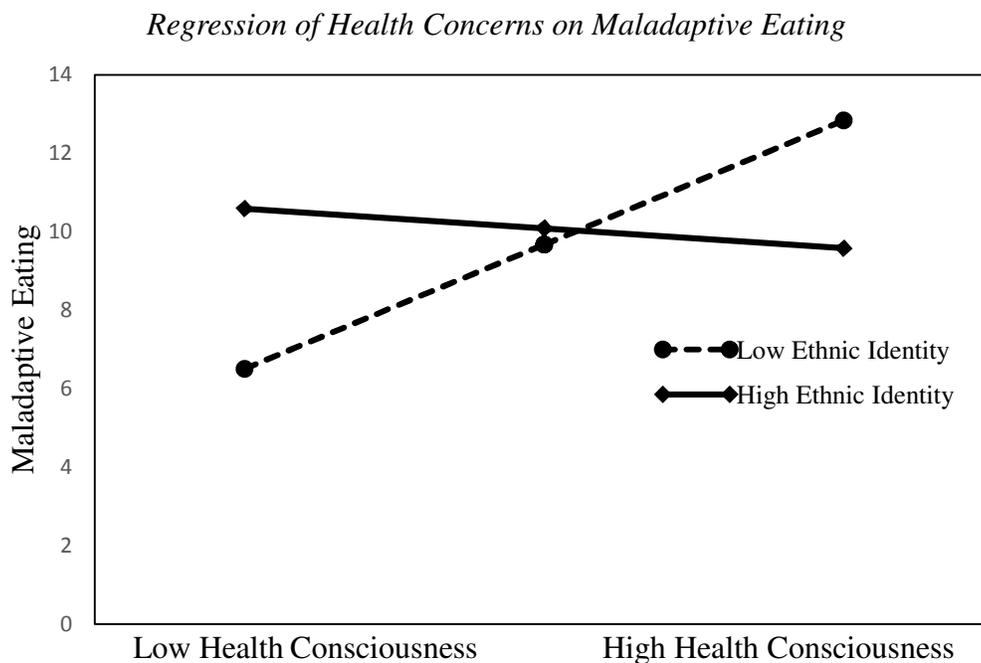
*Note.* Ethnic Identity = Multigroup Ethnic Identity Measure-Revised (MEIM-R); Health Consciousness = Health Orientation subscale of the Multidimensional Body Self-Relations Questionnaire (MBSRQ); BMI = Body Mass Index; Body Image = Appearance Evaluation subscale of the MBSRQ; EAT-26 = Eating Attitudes Test-26.

\* $p < .01$

As shown in Table 5, women's levels of body image satisfaction produced main effects in relation to maladaptive eating. Data suggested that low body image satisfaction was associated with high levels of maladaptive eating. The main effect of ethnic identity on maladaptive eating was not significant. The main effect of health consciousness on maladaptive eating was not significant.

The next step was to investigate interactions and slopes. Interaction terms for health consciousness and women's levels of ethnic identification [HO x MEIM-R] were calculated by multiplying the two centered variables (Aiken & West, 1991). Regression analyses showed significant moderating effects of women's level of ethnic identification on the relationship between health consciousness and maladaptive eating. The size of the interaction effect ( $R = .2, p = .005$ ) was interpreted as small (Cohen, 1992; Frazier et al., 2004). A follow-up simple slopes analysis was conducted according to recommendations from Aiken and West's (1991), at both high (+1 standard deviation) and low (-1 standard deviation) levels of health consciousness. For women with low levels of ethnic identification with African American culture, there was a significant positive association between health consciousness and maladaptive eating ( $B = .474, p = .003$ ), with higher levels of health consciousness predicting higher levels of maladaptive eating. Thus, women with low levels of ethnic identification with African American culture and high levels of health consciousness tended towards increased reports of maladaptive relationships with food. The effects of health consciousness on maladaptive relationships with food was not significant for women with high levels of ethnic identification ( $B = -.076, p = .579$ ). Figure 1 illustrates the moderating effects of women's levels of ethnic identification on the relationship between health consciousness and maladaptive eating for participants according to levels of ethnic identity. A medium effect size ( $R = .3, p = .012$ ) was found for the total effect size of the regression model (Cohen, 1992).

### **Figure 1**



For Hypothesis 4, I predicted that ethnic identity would moderate the relationship between body image concerns and maladaptive relationships with food. I utilized a similar procedure for analyses as described for Hypothesis 3 for testing this fourth hypothesis. The regression equation held women's levels of ethnic identification as the moderator variable, appearance concerns as the independent variable, and maladaptive eating as the dependent variable. The covariates were BMI and health consciousness. Predictor variables were centered by subtracting the mean for each respective variable separately (Aiken & West, 1991). The regression model was not significant ( $R^2 = .02$ ,  $F(1, 183) = 2.77$ ,  $p = .098$ ).

## Discussion

Consistent with research literature (Hesse-Biber et al., 2006; Juarascio et al., 2012), this study found that maladaptive relationships with food were associated with body satisfaction.

Analyses of data correlations relevant to this hypothesis indicated that maladaptive eating (measured by the EAT-26) tended to increase as body image satisfaction decreased (measured by the Appearance Evaluation subscale). These results suggest that African American women with low body image satisfaction are more prone to maladaptive eating habits. African American women's issues with body image and maladaptive eating behaviors have been erroneously minimized (Abood & Mason, 1997; Talleyrand, 2012). Research literature suggests that African American women who identify strongly with African American culture may be buffered from body image issues and maladaptive relationships with food (Rogers-Wood & Petrie, 2010; Watson et al., 2013). Nevertheless, results from the current study suggest that not all African American women are buffered from body image issues and maladaptive relationships with food.

Women who participated in the study reported that their maladaptive eating behaviors tended to increase in association with high levels of cognitive and behavioral investments into their appearance. Women's levels of maladaptive eating were positively associated with their levels of cognitive and behavioral investments into managing body appearance. This suggests that African American women who place high importance and attention on their appearance may be more susceptible to resorting to maladaptive eating habits. Clinicians should be aware that women's physical appearance may not be a reliable indicator of the need to assess for disordered eating. Some African American women may struggle with maladaptive relationships with food that are disguised by their high cognitive and behavioral investments into managing their appearances. Likewise, some women may place high cognitive and behavioral investments into their appearances and not struggle with any maladaptive eating issues. Encouraging women to talk about their attitudes towards their appearance and food may help clinicians to access women's potential body image and maladaptive eating concerns.

Contrary to the second hypothesis that predicted an inverse relationship, analyses of correlations revealed positive correlations between the importance that women placed on their appearance and the importance placed on health consciousness. African American women represented in this sample considered concerns about their appearance comparably as important as maintenance of health consciousness. This suggests that women may have high levels of health consciousness and may also be very concerned with appearance.

Results of multiple regression analyses for this study's third hypothesis showed that ethnic identity moderated the relationship between maladaptive relationships with food and health consciousness particularly at women's low levels of ethnic identification with African American culture. Thus, women's maladaptive eating behaviors may be triggered by attempts to attend to concerns for health, especially for African American women with low levels of identification with African American culture. Despite efforts to be health conscious, many African American women may lack sufficient exercise regimens to help them maintain their desired weight and lifestyle in healthy manners (Duncan et al., 2004; Dutton et al., 2004). Instead, African American women may have expectancies that certain diets can help them maintain a thin body and that thinness will lead to greater life-improvement (Henrickson et al., 2010). Research suggests that African American women tend to be more susceptible to emulating societal ideals of thinness and disordered eating when they have low levels of ethnic identification (Duncan et al., 2004; Flowers et al., 2012).

Ethnic identity, race, and minority status are overlapping psychological components that have huge implications for African American women's health consciousness and eating behaviors (Bowers, 2009; Jefferson & Stake, 2009; Phinney, 1996). Societal oppression ranging from slavery to microaggressions have limited the availability and choices of healthy food

options, as well as financial resources available for food and health for African American women (Bowers, 2009; Capodilupo & Kim, 2013; Counihan, 1992). Additionally, other factors such as hair maintenance and associated costs can be a barrier to healthy behaviors for African American women (Versey, 2014). For example, some African American women were socialized as young girls to avoid certain physical activities, especially exercises that may negatively impact the maintenance of their hair (Hesse-Biber et al., 2010; Versey, 2014). Consequently, there are adult African American women who may avoid exercise or may not have learned particular skills for sports such as swimming (Cheney, 2011; Versey, 2014). African American women who participated in the current study may attempt to be health conscious, but may be engaging in maladaptive eating habits and lack of balance between proper diet and exercise.

As it relates to four participants in the current study who reported having formal eating disorders, two participants reported having a diagnosis of bulimia and one participant reported difficulties with overeating. Research literature states that there has been a global rise of eating disorders, which suggests that eating disorders affect women from various ethnic backgrounds (Cheney, 2011). Additionally, binge eating disorders and bulimia nervosa disorders are the most common eating disorders identified for African American women (Shallcross, 2010; Talleyrand, 2012). Like many women, African American women in college are at risk for eating disorders because of strong academic pressures and social emphases on appearance that tend to be apart of college campus milieus (Baugh et al., 2010). It is possible that the incidence of eating disorders was under-reported in the sample for the current study. Some African American women meet criteria for classifiable eating disorders but may be resistant to disclosing their eating disorder struggles or unaware of the severity of their maladaptive eating behaviors (Di Noia et al., 2009; Shah et al., 2010). Women also may not know how their maladaptive relationships with food

could lead to dire health consequences (Dutton et al., 2004; Gans et al., 2009; Lucan et al., 2012).

The association between maladaptive relationships with food and concerns for health may also be reflected by women's overweight body sizes and obesity (Kurth et al., 2012; Rich & Thomas, 2008). African American women have an extremely high incidence of obesity and diet-related illnesses when compared to other cultures (The Office of Minority Health, n.d.). Although the majority of the sample for the current study reported no difficulties with minor or major medical conditions, slightly over half the sample reported difficulties with either being overweight, obese, or extremely obese. Twenty-three percent of the sample had a waist circumference indicating high predisposition towards health risks. Body fat distributed in the waist area of the body in visceral adipose tissue is associated with increased risks of cardiovascular medical issues (Kurth et al., 2012; Muenig, 2008; Vines et al., 2007). African American women have high morbidity and mortality to heart disease, diabetes, and high blood pressure (HHS.gov, 2012; Vines et al., 2007).

Moreover, analyses of data correlations relevant to health consciousness showed an inverse relationship between women's levels of ethnic identification and their levels of health consciousness. Women's high levels of ethnic identity were associated with low levels of health consciousness. Some women may have strong identification with African American culture and traditional rituals regarding food (Abood & Mason, 1997; Bowers, 2009); whereas others may internalize mainstream culture and reject aspects that characterize the African American ethnic identity (Ristovski-Slijepcevic et al., 2010; Rogers-Wood & Petrie, 2010). Traditional food habits germane to African American culture have championed foods high in cholesterol, carbohydrates, sodium, and saturated and trans fats over healthier food choices (Bowers, 2009;

Duncan & Robinson, 2004). The basic function of food as nourishment can be intricately intertwined with the more complex function of food as a mode of transmission of values and affection (Bowers, 2009). Food traditions and body ideals in African American culture may help to lower the prevalence of certain types of eating disorders, such as anorexia (Flowers et al., 2012; Shallcross, 2010); however, they may simultaneously increase women's vulnerability to obesity and diet-related illnesses (Antin & Hunt, 2012; Duncan & Robinson, 2004).

It was unexpected that women's levels of ethnic identity did not significantly moderate the effects of body image satisfaction on maladaptive eating in the multiple regression analyses for the fourth hypothesis. Maladaptive relationships with food are often utilized as a means of managing body image (Chandler-Laney, et al., 2009; Dutton et al., 2004). As it relates to the current study, the lack of support for the moderating effects of ethnic identity on the relationship between body image concerns and maladaptive eating suggests that it cannot be assumed that women's levels of ethnic identification will influence whether or not their maladaptive eating behaviors are motivated by body image dissatisfaction. Regardless of the impetus for their maladaptive eating behaviors, participants of varying levels of ethnic identity reported having difficulties with maladaptive eating issues.

Analyses of data correlations related to the fourth hypothesis revealed interesting findings about the relationship between ethnic identity and body image concerns. Women's high levels of ethnic identification were associated with low levels of body satisfaction. This result seemed contrary to the idea that high levels of identity with African American culture can serve as buffers from pressures to adopt societal body image ideals (Flowers et al., 2012). Nevertheless, all women can be impacted by slender body image ideals, especially if they subscribe to the belief that certain body images and appearances are rewarded social favor and economic gain in society

(Cheney, 2011; Jefferson & Stake, 2009; Hesse-Biber et al., 2006). Baugh et al. (2010) concluded that women in their study experienced body dissatisfaction when comparing their body type to body image ideals regardless of ethnic identity. Moreover, analyses of data correlations for the current study showed that body satisfaction decreased as body mass indexes increased. These data suggest that women's body dissatisfaction is more problematic for women with heavier body structures irrespective of women's levels of ethnic identification.

African American women may place high importance on emulating certain appearances which determine their body satisfaction, because of socio-culturally reinforced beliefs that they need to emulate societal stereotypes in order to have success in relationships, careers, and life in general (Duncan & Robinson, 2004; Jefferson & Stake, 2009). Aspects of body image appearance, such as hair, skin, and attitude, may be equally important as body shape and size (Capodilupo & Kim, 2013). Overall, findings regarding the fourth hypothesis support the aforementioned point that African American women heterogeneously differ in terms of the body images they idealize (Jefferson & Stake, 2009) and whether they struggle with body image issues that motivate maladaptive relationships with food (Flowers et al., 2012; Ristovski-Slijepcevic et al., 2010).

A strength of this study is that it reiterates that African American women can have various levels of identification with African American culture, body image satisfaction, body structures, and levels of health consciousness. The current study further acknowledged and explored complexities inherent in women's maladaptive eating behaviors, by recognizing how maladaptive relationships with food can be triggered by concerns for health or associated with concerns for body image ideals. The following are some guidelines to assist clinicians in addressing these complex concerns:

1. It is important to assess for potential body image issues and maladaptive eating habits when treating African American women. Clinicians can assess for body image issues and maladaptive relationships with food by encouraging women to discuss biopsychosocial factors that have influenced their experiences of their bodies and eating habits (Shallcross, 2010). Women can also be encouraged to describe their attitudes, thoughts, emotions, and behaviors towards their body image and food (Shallcross, 2010; Thompson, 1996). Clinicians can utilize formal instruments, such as the Multidimensional Body Self-Relations Questionnaire, if further attention to these concerns are needed in treatment.
2. Body dissatisfaction can be more problematic for women with heavier body structures. Nevertheless, clinicians should be aware that women's physical appearance may not be a reliable indicator of the need to assess for disordered eating and body image issues. Clinicians who assume that body image and eating struggles are relegated to other ethnicities or particular body sizes, may overlook opportunities to assess and discuss such issues.
3. It is recommended that clinicians utilize culturally sensitive interventions when treating African American women (Di Noia et al., 2009). Culturally sensitive interventions should regard African American women as a heterogeneous population with varying sociocultural contexts and the potential for multiple intersecting marginalized identities (Cheney, 2011; Jefferson & Stake, 2009). African American women often encounter experiences of discrimination, prejudice, economic distress, and disadvantaged political status, based on their ethnicity (Counihan, 1992; Lee & Soyeon, 2013). In addition to experiences relating to ethnicity, African American women may face marginalization

from the perspectives of gender, ethnicity, body size, sexual orientation, political status, education, and socio-economic status (Counihan, 1992; Lee & Soyeon, 2013; Phinney, 1996). Some women may seek to emulate certain Westernized body image ideals as a means to reduce social inequalities and increase their social status or power (Cheney, 2011). All of these factors can influence women's perspectives of their bodies and their approaches towards their health (Dingfelder, 2013; Harris, 1995; Jefferson & Stake, 2009).

4. Educating African American women about healthy eating habits, appropriate serving sizes of food, exercise, and associated health concerns, is essential to empowering women to adopt healthier regimens (Dingfelder, 2013; Duncan & Robinson, 2004; Shah et al., 2010). Despite implications for health, some women may be resistant to suggestions to change their food habits if they view dietary changes as threats to eliminating certain preferred foods or traditions associated with certain foods (Bowers, 2009; Talleyrand, 2012). Clinicians can encourage clients to discuss the function of food in their lives and assist clients in adopting more open attitudes towards dietary changes.
5. Clinicians should be mindful of women's potential barriers to healthy food choices when planning interventions. African American women's marginalized cultural identities in relation to mainstream society influence the familiarity, affordability, and availability of healthy food choices (Antin & Hunt, 2012; Dingfelder, 2013; Lucan et al., 2012). Women's documented experiences of discrimination based on these cultural identities imply the need for more social advocacy work to help address social inequality, healthcare disparities, and affordable resources for healthy living (Dingfelder, 2013; The Office of Minority Health, n.d.).

6. Clinicians can encourage women to examine available resources that may help them to address body image issues and impediments to healthier lifestyles (Di Noia et al., 2009; Hesse-Biber et al., 2006). Women may be unaware of accessible exercise equipment in their communities. They may also not know about information on nutrition and health through websites by womenshealth.gov, Office of Minority Health, the U.S. Department of Health and Human Services, and other relevant resources.
7. Clinicians can further help women to explore what meaning is held by their current body image and food relationships, especially given that adherence to central cultural values may be communicated through their eating habits and behaviors towards their health (Counihan, 1992; Ristovski-Slijepcevic et al., 2010). These values may be in conflict with other values and ideals women hold in relation to their bodies and health (Cheney, 2011; Henrickson et al., 2010). Clinicians can help women to explore their values, negotiate impediments to their healthy lifestyle changes, and decide how to best utilize the resources available to them (Shah et al., 2010; Talleyrand, 2012).

#### *Limitations and Future Research Implications*

There were notable limitations to the current study. First, the sample for the current study was obtained from an ethnically-diverse college population of one university. As a result, the generalizability of results is limited given use of a convenience sampling method.

Second, self-report measures were utilized for collecting all data, including ethnic identity, weight, height, and waist measurements. Therefore, the accuracy of data from respondents cannot be verified. It is assumed that the adequate sample size for this study served to increase statistical power to detect differences representative of the population and reduce errors that would otherwise skew results (Frazier et al., 2004; Minium et al., 1999).

A third limitation may be the use of two instruments to measure body image and eating constructs in African American women. Research literature has debated the appropriateness of the MBSRQ and EAT-26 for use with African American populations. Helms (2007) discussed that some instruments do not assess equivalent constructs across race or ethnicity. Although there was research documenting effective use of the measures relevant to this study with African American populations, there is no single effective approach to conducting research with African American women (Kashubeck-West et al., 2013). Future research could investigate and improve upon existing measures of body image, maladaptive eating, and health consciousness for use with this population.

Future research could also facilitate the creation of more instruments that have more optimal psychometric properties for African American populations. Research methodologies and instruments are needed that apply intersectional frameworks representative of the many intersecting identities experienced among African American women rather than single categorical approaches based only on race or gender (Capodilupo & Kim, 2013; Versey, 2014). Because the integrity of research findings is largely determined by the instrument utilized to generate the results (Cokley, 2007), the use of improved instruments to conduct research can better detect meaningful differences and experiences relevant to African American women (Cokley, 2007; Versey, 2014).

Finally, an area of future research are body image concerns and maladaptive eating issues for African American women who are pregnant. The sample for the current study was not inclusive of African American women who identified as being pregnant. Participants who reported being pregnant were excluded from the study. If the present study had been inclusive of participants who were pregnant, then this inclusion would have likely confounded the use of body mass

index measures and waist circumference measures as reliable indicators of body structure and cardiovascular health risk factors (Sabik et al., 2010; Schuler et al., 2008). Body image and health concerns are an important area of study for college-aged women who aspire to be pregnant. Research literature suggests that obese women who become pregnant are more likely to have a child with autism or other neurodevelopmental disorder (Krakowiak, et al., 2012). Future studies on this topic can inform interventions that can address obesity, negative body image, and many other adverse health outcomes (Di Noia et al., 2009; Cheney, 2011; Gans, et al., 2009). Women who learn how to address their body image concerns and avoid adverse health issues may serve as conduits to spread knowledge about these positive approaches to other women (Duncan & Robinson, 2004).

### **Conclusions**

The present study investigated body image issues and maladaptive relationships with food as it related to college-aged African American women who were currently enrolled in college. More specifically, the study explored how women's levels of identity with African American culture can influence their susceptibility to maladaptive eating behaviors and body image concerns. It further examined health consciousness and body image satisfaction in relation to maladaptive eating behaviors. Overall, this study encourages attention to body image issues, concerns with health, and maladaptive eating, with respect to sociocultural factors and the multiple intersecting identities that women may hold. It further underscores the importance of implementing culturally sensitive interventions that can help facilitate increased body satisfaction and health.

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## APPENDICES

### Appendix A: Informed Consent

**Georgia State University  
College of Education  
Department of Counseling and Psychological Services  
30 Pryor Street, 9<sup>th</sup> Floor, Atlanta, Georgia 30303**

#### Informed Consent

**Title:           Body Image and Eating Habits in African American Women**

**Principal Investigator:** Greg Brack, Ph.D.

**Student Principal Investigator:** Angela Montfort, Ed.S..

#### **I. Purpose:**

You are invited to participate in a research study. The purpose of this study is to study body image and eating habits in African American women. You are invited to participate because you are an African American college student who may be between the ages of 18 and 35. The student researcher is an African American doctoral student. We hope the results of the study can be used to improve services for African American women. A total of 200 participants will be recruited for this study. Participation will require 40 minutes of your time for one time.

#### **II. Procedure:**

If you decide to participate, you will be asked to complete a survey. The survey will ask questions about what you think about your body image, and eating habits. You will be asked about your weight, height, and waist measurements. The survey is online. Tape measures are also available upon request. All information will be kept confidential, although confidentiality cannot be guaranteed for studies conducted through the internet.

#### **III. Risks:**

It is possible that participation in this study will cause you emotional discomfort. The survey is not intended to cause you any discomfort. However, if any discomfort should occur, the name and contact information is provided below for resources to assist you.

Georgia State University Counseling and Testing Center 75 Piedmont Avenue, N.E., Suite 200A, Atlanta, Georgia 30303	(404) 413-1640
------------------------------------------------------------------------------------------------------------------------	----------------

Georgia State University Student Health Clinic 141 Piedmont Avenue, Suite D, Atlanta, Georgia 30303	(404) 413-1930
--------------------------------------------------------------------------------------------------------	----------------

National Eating Disorders Association <a href="http://www.nationaleatingdisorders.org">www.nationaleatingdisorders.org</a>	(800) 931-2237
-------------------------------------------------------------------------------------------------------------------------------	----------------

Ridgeview Institute	(770) 434-4567
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3995 South Cobb Drive, Smyrna, Georgia 30080

#### **IV. Benefits:**

Participation in this study may not benefit you personally. This is one of several different studies available to you, for which you may opt to receive one research credit for your participation in this study.

#### **V. Voluntary Participation and Withdrawal:**

Participation in this study is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind you have the right to drop out at any time. You may skip questions or stop participating at any time. Whatever you decide, you will not lose any benefits as it relates to obtaining research experience. However, you will need to complete the questionnaire in order to obtain the verification of completion at the end of the survey.

#### **VI. Confidentiality:**

We will keep your records private and protected to the extent allowed by law. There will be no participant names or identifying information linked to the questionnaire. We will use numbers rather than your name on study records. The health information you give us will be used in this research study. The Principal Investigators and research team will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly, such as the Georgia State University Institutional Review Board and the Office for Human Research Protection (OHRP). The information you provide will be stored on a computer behind a password-protected firewall. There will be no names or signatures collected in this study. Your name and any other facts that might identify you will not appear when we present this study or publish its results. The findings will be summarized in group form only. You may request a copy of the completed study when it has been completed in its entirety.

#### **VII. Contact Persons**

Contact Dr. Greg Brack at (404) 413-8165, gbrack@gsu.edu or Angela Montfort at (404) 731-6442, aking28@student.gsu.edu, if you have questions, concerns, feedback, or complaints about this study. You can also call Susan Vogtner in the Georgia State University Office of Research Integrity at (404) 413-3513 or svogtner1@gsu.edu, if you want to talk to someone who is not part of the study team. You can talk about questions concerns, offer feedback, obtain information, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

#### **VIII. Copy of Consent Form:**

Please save or print a copy of this consent form to keep and reference.

**If you agree to participate in this research, please continue with the questionnaire.**

**Appendix B: Demographic Survey****Demographic Questionnaire**

Please answer all of the questions below.

1. What is your gender?

Male

Female

If not listed, please specify \_\_\_\_\_

2. What is your age? \_\_\_\_\_

3. What is your current weight in pounds? \_\_\_\_\_

4. What is your current height in inches? \_\_\_\_\_

5. What is your waist measurement (circumference) in inches? \_\_\_\_\_

6. How do you identify your ethnicity (Select any that apply)?

(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) East Indian or South Asian

(7) Biracial or Multiracial \_\_\_\_\_

(8) If not listed, please specify \_\_\_\_\_

7. What is your marital status?

Single/ Never Married

Married

Partnered

Separated

Divorced

Widowed

8. Have you ever been diagnosed with an eating disorder or believe you may have an eating disorder?

Yes If yes, please specify \_\_\_\_\_

No

Unknown

9. What is the highest level of education you have completed?

High school education

Technical/ trade/ vocational training

Associate degree

Undergraduate degree

Graduate degree

Some post-graduate work

Post-graduate degree

10. Are you currently a student enrolled in college?

Yes If yes, anticipated graduation date \_\_\_\_\_

No

11. Are you currently pregnant?

Yes

No

12. Do you have any current medical condition(s) other than a cold/flu virus or minor infection?

Yes

No

13. Do you have any chronic or recurrent medical condition(s)?

Yes

No

14. Are you currently employed?

Full-time

Part-time

Not employed

Retired

15. What is your household annual income before taxes?

Under \$15,000  
\$15,000-\$25,000  
\$25,001-\$35,000  
\$35,001-\$45,000  
\$45,001-\$55,000  
\$55,001-\$65,000  
\$65,001-\$75,000  
\$75,001-\$85,000  
\$85,001-\$95,000  
\$95,001-\$105,000  
Over \$105, 000

## Appendix C: Recruitment Script

**Georgia State University**  
**College of Education**  
**Department of Counseling and Psychological Services**  
**30 Pryor Street, 9<sup>th</sup> Floor, Atlanta, Georgia 30303**

**Title:**           **Body Image and Eating Habits in African American Women**

**Principal Investigator:** Greg Brack, Ph.D.

**Student Principal Investigator:** Angela Montfort, Ed.S..

### **Purpose:**

You are invited to participate in a research study. The purpose of this study is to study body image and eating habits in African American women. You are invited to participate because you are an African American college student who may be between the ages of 18 and 35. The student researcher is an African American doctoral student. We hope the results of the study can be used to improve services for African American women. A total of 200 participants will be recruited for this study. Participation will require 40 minutes of your time for one time.

### **Procedure:**

If you decide to participate, you will be asked to complete a survey that you can access online through the Counseling and Psychological Services (CPS) Department Sona website. The survey will ask questions about what you think about your body image, and eating habits. You will be asked about your weight. You will also be asked to provide your height and waist measurements. Tape measures are also available on the 9<sup>th</sup> floor of the GSU College of Education building.

### **Voluntary Participation and Withdrawal:**

Participation in this study is voluntary. If you decide to be in the study and change your mind you have the right to drop out at any time.

### **Confidentiality:**

We will keep your records private and protected to the extent allowed by law. There will be no participant names or identifying information linked to the questionnaire. We will use numbers rather than your name on study records. The health information you give us will be used in this research study. All information will be kept confidential, although confidentiality cannot be guaranteed for studies conducted through the internet.

### **Contact Persons:**

Contact Dr. Greg Brack at (404) 413-8165, gbrack@gsu.edu or Angela Montfort at (404) 731-6442, aking28@student.gsu.edu, if you have questions, concerns, feedback, or complaints about this study. You can also call Susan Vogtner in the Georgia State University Office of Research Integrity at (404) 413-3513 or svogtner1@gsu.edu, if you want to talk to someone who is not part of the study team.

## Appendix D: Questionnaire

### 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 provide your name at any point during the questionnaire. 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:

**(5) Strongly agree   (4) Agree   (3) Neutral   (2) Disagree   (1) Strongly disagree**

\_\_\_\_\_ 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.

(5) Strongly agree (4) Agree (3) Neutral (2) Disagree (1) Strongly disagree

Part A	(5) Strongly Agree	(4) Agree	(3) Neutral	(2) Disagree	(1) Strongly Disagree
1. My body is sexually appealing.					
2. I like my looks just the way they are.					
3. Most people would consider me good-looking.					
4. I like the way I look without my clothes on.					
5. I like the way my clothes fit me.					
6. I dislike my physique.					
7. I am physically unattractive.					
8. Before going out in public, I always notice how I look.					
9. I am careful to buy clothes that will make me look my best.					
10. I check my appearance in a mirror whenever I can.					
11. Before going out, I usually spend a lot of time getting ready.					
12. It is important that I always look good.					
13. I use very few grooming products.					
14. I am self-conscious if my grooming isn't right.					
15. I usually wear whatever is handy without caring how it looks.					
	(5) Strongly	(4) Agree	(3) Neutral	(2) Disagree	(1) Strongly

	Agree				Disagree
16. I don't care what people think about my appearance.					
17. I take special care with my hair grooming.					
18. I never think about my appearance.					
19. I am always trying to improve my physical appearance.					
20. I am in control of my health.					
21. My health is a matter of unexpected ups and downs.					
22. I am seldom physically ill.					
23. From day to day, I never know how my body will feel.					
24. I often feel vulnerable to sickness.					
25. I am a physically healthy person.					
26. I know a lot about things that affect my physical health.					
27. I have deliberately developed a healthy lifestyle.					
28. Good health is one of the most important things in my life.					
29. I don't do anything that I know might threaten my health.					
30. I take my health for granted.					
31. I often read books and magazines that pertain to health.					
	(5)	(4)	(3)	(2)	(1)
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree





24.	I like my stomach to be empty.	<input type="checkbox"/>					
25.	I have the impulse to vomit after meals.	<input type="checkbox"/>					
26.	I enjoy trying new rich foods.	<input type="checkbox"/>					

Part C: Behavioral Questions:		Never	Once a month or less	2-3 times a month	Once a week	2-6 times a week	Once a day or more
In the past 6 months have you:							
A.	Gone on eating binges where you feel that you may not be able to stop?*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B.	Ever made yourself sick (vomited) to control your weight or shape?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C.	Ever used laxatives, diet pills or diuretics (water pills) to control your weight or shape?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D.	Exercised more than 60 minutes a day to lose or to control your weight?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E.	Lost 20 pounds or more in the past 6 months?	YES <input type="checkbox"/>			NO <input type="checkbox"/>		
F.	Have you ever been treated for an eating disorder?	YES <input type="checkbox"/>			NO <input type="checkbox"/>		

\*Defined as eating much more than most people would under the same circumstances and feeling that eating is out of control.