2017

Relationships Among Body Image Dissatisfaction, Body-Enhancing Behaviors, and Self-Esteem in Adult Males

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2017

Abstract

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by

Shimeka M. Damon

MA, Brooklyn College, 2005

BS, St. Joseph's College, 2001

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

February 2017

Abstract

Body image dissatisfaction (BID) is increasing among U.S. men and is associated with body-enhancing behaviors that threaten physical health, such as excessive dieting and exercising. A research gap was identified about the relationships between men's body image dissatisfaction, body-enhancing behaviors, and the possible mediating effect of self-esteem. The purpose of this study was to examine the relationships among body image dissatisfaction, body-enhancing behaviors, and self-esteem in adult males. Sociocultural and social comparison theory served as the theoretical frameworks for this study, which included 103 participants recruited through a university participant pool and gyms. Participants completed questionnaires including the Body-Esteem Scale, Rosenberg Self-Esteem Scale, Exercise Dependence Scale-21, Revised Restraint Scale, and a demographic questionnaire. Correlational and regression analyses were conducted to determine the relationships between all constructs and to test self-esteem as the mediating variable. A mediation model showed a relationship between dieting and self-esteem and BID in that high BID was related to low self-esteem. However, self-esteem did not mediate the relationship between diet and exercise. Findings indicated a significant relationship between higher BID and lower self-esteem. Results also indicated a significant relationship between BID and dieting. Results may be used to improve the lives of men affected by BID by informing them about factors that may affect BID and/or self-esteem. Enhancing the understanding of males' low self-esteem and body image may help researchers and practitioners develop more effective interventions.

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Dedication

To my grandparents who taught me to never give up and to believe in myself.

Acknowledgments

Thanks first and foremost to God. Thanks to my loving parents, Milton and Dorothy, for all of their guidance and strength. Thanks to Gabrielle for making me smile and laugh.Thanks to Johanne, Daryl, and Gina for sticking with me during good and bad times. Thanks to Dr. Charlton Coles and Dr. Matthew Hertenstein for believing in me. Thanks to Dr. Zin Htway and Sarah for encouraging me to reach the finish line. Thanks to my inner self for not giving up during this difficult process.

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Chapter 1: Introduction to the Study

The topic of this study is body image dissatisfaction among men. It is not clear from the literature how body image dissatisfaction leads to problematic behaviors. Without a clear understanding of the mechanisms of action, it is difficult to develop good intervention programs to promote proper behaviors among men. This study was conducted to provide further insight into the relationships among male body image, self-esteem, and body-enhancing behaviors (diet and exercise). Specifically, I examined whether self-esteem mediated the relationship between body image dissatisfaction and body-enhancing behaviors. Sociocultural and social comparison theories served as the frameworks for the study. Results may be used by researchers and practitioners to develop or improve methods to help males with body image dissatisfaction. Improving body image may help males develop higher self-esteem, which could increase their confidence levels.

This chapter provides the background of the study, problem statement, research questions, hypotheses, theoretical framework, nature of the study, and significance.

Background of the Study

The focus of this study was body image dissatisfaction (BID) among men. BID refers to negative thoughts, beliefs, and attitudes about an individual's body (Dittmar, 2005). BID causes a man to see himself in an unrealistically more negative light than how he actually looks, such as a skinny person believing that he is overweight. Men who experience BID have been found to engage in body-enhancing behaviors that may threaten physical health, such as excessive dieting or exercise (Bozard & Young, 2016;

Dittmar, 2005; Grogan, 1999; Tantleff-Dunn, 2001; Wooten, 2007). Research has also indicated that BID is related to self-esteem among men (Grogan, 1999). However, how these variables are related has not been determined, and this relationship may have implications for treatment. I examined whether BID was associated with problematic health behaviors through its well-established relationship with self-esteem (Cordes, Vocks, Düsing, Bauer, & Waldorf, 2016; Grogan, 1999; Tantleff-Dunn, 2001).

Statement of the Problem

Men who are unhappy about their appearance may participate in excessive exercising or dieting (Tantleff-Dunn, 2001) to help them improve their looks (Dittmar, 2005); excessive exercising and/or dieting can threaten physical health. These behaviors are referred to as body-enhancing behaviors in the study. Media images portray attractive men as muscular, frequently more muscular than can ever be achieved through healthy and measured diet and exercise. These factors may be causing an increase in BID among young men, which may be related to unhealthy behaviors (Dittmar, 2005). However, there is a paucity of research on the relationship between men's body image dissatisfaction and body-enhancing behaviors, and possible variables that may mediate this relationship.

I examined the relationship among these variables in adult males, focusing on self-esteem as a possible mediator. Results may provide an understanding of the specific contributing factors and consequent behaviors. An enhanced understanding of men's BID may be used to develop programs to minimize this problem.

Purpose of the Study

The purpose of this quantitative, cross-sectional survey study was to improve the understanding of the relationship among BID, body-enhancing behaviors, and self-esteem among males. I examined whether self-esteem mediated the relationship between BID and body-enhancing behaviors in this population. Improved understanding of how these variables are related may help researchers and practitioners developed methods to help males with body image dissatisfaction.

Theoretical Framework

Schilder (as cited in Grogan, 1999) introduced the term body image and presented it from both a psychological and sociological perspective. Previous researchers discussed negative body image as "distorted body perceptions that were caused by brain damage" (Grogan, 1999, p. 1). Psychological and sociological factors contribute to body image, and these factors are illustrated in body image theories. Psychological factors such as low self-esteem and high depression levels are noticed among men with body image concerns (Cordes et al., 2016; McCreary & Sasse, 2000). Sociological factors such as family, peers, media, and culture could contribute to body image concerns (Grogan, 1999; Dittmar, 2005). In the present study, I focused on the psychological factor of self-esteem as a potential significance of BID and predictor of behavior.

According to social comparison theory, individuals first try to measure their opinions and abilities through objective measures (Klein & Goethals, 2002; Lindner, Tantleff-Dunn, & Jentsch, 2012; Park & Salmon, 2005; Pompper, Soto, & Piel, 2007), and if objective measures are not present, then judgments are made by comparing oneself

to other people. Individuals may compare themselves to other individuals by judging looks, talents, and other comparative aspects, such as assets. Social comparison theory is used to explain how individuals feel about themselves and factors that may influence how individuals feel. Grogan (1999) noted that both males and females begin to notice their appearances at the age of eight years. In Western society, the perfect body image for men is having an average figure with reasonable muscles, and the perfect body image for women is having a slim figure (Duncan, 2007; Grogan, 1999; Olivardia, Pope, Borowiecki, & Cohane, 2004; Tantleff- Dunn, 2001). In addition, the media contributes to how men and women perceive ideal body images (Tantleff-Dunn, 2001). Individuals who watch television and notice television personalities may feel less content about their own bodies (Duncan, 2007; Gough, Seymour-Smith, & Matthews, 2016; Grogan, 1999; Stice & Whitenton, 2002). Women and girls have felt compelled to take drastic measures to look like the individuals who appear in magazines or television. Men may also feel the pressure to have a certain look to fit in society, and so they may turn to drastic measures such as steroids, ephedrine, and deleterious dieting strategies (Dittmar, 2005), all of which contribute to negative health effects. In Chapter 2, I review the literature addressing theories, BID, self-esteem, and health behaviors.

Research Question and Hypotheses

The following research questions and hypotheses were examined in the present study.

Research Question 1: Is there a relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale?

Null hypothesis (H_{1o}): There is no relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale.

Alternative hypothesis (H_{1a}): There is a relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale.

Research Question 2: What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale?

Null hypothesis (H_{2o}): There is no relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale.

Alternative hypothesis (H_{2a}): There is a relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale.

Research Question 3: What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale?

Null hypothesis (H_{3o}): There is no relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as

measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale.

Alternative hypothesis (H_{3a}): There is a relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale.

Research Question 4: Does self-esteem, as measured by the Rosenberg Self-Esteem Scale, mediate the relationship between BID, as measured by the Body-Esteem Scale, and body-enhancing behaviors, as measured by the Revised Restraint Scale and Exercise Dependence Scale, among males?

Null hypothesis (H_{40}): Self-esteem does not mediate the relationship between BID and body-enhancing behaviors among males.

Alternative hypothesis (H_{4a}): Self-esteem mediates the relationship between BID and body-enhancing behaviors among males.

Nature of the Study

The research hypotheses were tested using a cross-sectional, correlational quantitative design. Participants completed a self-administered questionnaire to determine the effect of the independent variable, self-esteem, on the dependent variable, body enhancing behaviors. I used the survey design to provide detailed information about body image dissatisfaction and self-esteem among males.

Definition of Terms

For the purpose of this study, I defined key terms as follows:

Anorexia nervosa: below recommended body weight for age and height (American Psychiatric Association, 2000).

Body dissatisfaction: negative thoughts about an individual's body (Dittmar, 2005).

Body dysmorphic disorder: preoccupation with an imagined or slight defect in appearance, which causes clinically significant distress or impairment in social, occupational, or other important areas of functioning (Sarwer et al., 1998, p. 652).

Body ideal: "aspiring to a degree of thinness or muscularity that one cannot easily attain" (Hausmann, Mangweth, Walch, Rupp, & Pope, 2004, p. 1555).

Body image: one's internal image of his or her external physical appearance (Pompper et al., 2007).

Body image dissatisfaction: displeasure about one's appearance.

Body mass index (BMI): an index of weight in kilograms adjusted for the height in meters squared of an individual (National Institute of Diabetes and Digestive and Kidney Diseases, 2012).

Excessive exercising: exercising for 2 or more hours daily and making exercising a priority in one's life (Harmon, 2009).

Self-esteem: experiencing satisfying or dissatisfying feelings about oneself in terms of being competent, successful, worthy, and significant (Chiu, 1988).

Social comparison theory: comparing oneself to other individuals with a body image that may appear better than oneself (Hobza & Rochlen, 2009).

Sociocultural theory: seeing the mass media and other sources of sociocultural pressure as powerful causes of sociocultural body ideals (Dittmar, 2005).

Assumptions

I assumed that respondents answered truthfully and thoughtfully to the survey items. I assumed that the Body-Esteem Scale (BES) and Rosenberg Self-Esteem Scale (RSES) were good measures of the constructs they were used to measure. In addition, I assumed that the questionnaires that were regularly used as measures for studies on women were applicable to men. Data on reliability of the questionnaires were computed to determine how reliable these instruments were. These instruments have been used with men in the past and have been found to be valid and reliable.

I assumed that the participants would be comfortable participating in the study. I assumed that the participants understood the purpose of the study, and if any of the participants were unclear about the purpose and/or methods, they would ask for clarification. I assumed that, like most of the adult male population, the men in the sample would have issues related to their body image.

Limitations

Relying on participants to answer the questions truthfully and thoughtfully was a limitation of the study, as it was impossible to know whether this was the case. Recruitment of a sufficient number of participants should mitigate the negative effects of this limitation. Further limitations of the study were that the sample might not include a wide array of participants or a wide age range, and therefore the study's conclusion may not be generalized to all men.

Scope and Delimitations

The major delimitation of this study was the participants. The participant pool allowed me to have a range of participants in the study with various ages, ethnicities, weight, and height. However, this study did not consist of females because I was interested in studying males and body dissatisfaction. Also, this study did not consist of minors because minors are still developing. This study adds to the knowledge about males and body image and why individuals should focus on male body image.

Significance of the Study

This study adds to the knowledge base about men and body image. Most research focuses on body image among females (Sarwer et al., 1998). It is not known whether the same mechanisms of action cause and perpetuate body image dissatisfaction among men. Furthermore, it is important to help researchers identify the relationship between BID and self-esteem, which may cause men to participate in various problematic body-enhancing behaviors to help them obtain their ideal body image. Some of the behaviors, including surgery and drugs, may lead to harsh outcomes such as depression, illness, and even death (Dittmar, 2005; Filiault, 2007; Olivardia et al., 2004). Finally, I tested a mediation model in which the relationship between BID and problematic body-enhancing behaviors was mediated through self-esteem. Such an examination has not been conducted to date.

This study may contribute to social change by helping practitioners understand the relationship between BID, self-esteem, and body-enhancing behaviors among men who are unhealthily focused on their looks, which may help practitioners address issues of undereating, overeating, overexercising, and eating disorders. Researchers may be

able to expand on my findings about self-esteem and body image of males. This study contributed to Walden's mission for social change by providing research that could assist both researchers and practitioners to better understand the problem, which could then lead to effective interventions.

Chapter Summary

Body image refers to how individuals see themselves and others, which contributes to how people think and feel about themselves and toward others. Comparing oneself with other individuals could lead to insecurity about one's body. Theories of body images suggest that individuals may distort their true body image with images of how they see themselves in their mind (Sarwer et al., 1998). I examined the relationship between body image dissatisfaction, self-esteem, and body-enhancing behaviors among men. In Chapter 2, I review the literature related to the study.

Chapter 2: Literature Review

Research on men's thoughts and perceptions about their bodies was not abundant. Many researchers have examined body image in women, but few have studied the impact of negative body image for men (Schwartz, Grammas, Sutherland, Siffert, & Bush-King, 2010). Issues that surrounded negative body image in women have been explored in newspapers, magazines, and television. Unrealistically thin women were used to sell products such as alcohol, cars, and clothes. Men were not immune to idealized figures in media. More than ever, men were determined to adjust their physical self to meet the images of models and athletes on television and in magazines (Grogan, 1999). For men, an ideal body image consisted of a lean yet muscular physique (Dittmar, 2005; Gattario et al., 2013; Grogan, 1999; Olivardia et al., 2004; Pompper et al., 2007). A muscular physique for males was a V-shape with an ideal chest, upper body, waist, and weight (Furnham & Calnan, 1998; Landow, 2006). Some men worked out to achieve their ideal body image but were unable to obtain desired results because of their body compositions in which gaining weight or increasing muscle size was not part of their genetic makeup. The cultural emphasis on physical perfection contributed to men's feelings about themselves by negatively affecting self-esteem and depression levels (Dittmar, 2005; Grogan, 1999; Olivardia et al., 2004; Pompper et al., 2007).

For some individuals, body image disturbance was associated with problematic behaviors such as eating problems (Gillen & Lefkowitz, 2006). Men participated in various dangerous activities to achieve their ideal body images. Some activities included overexercising, starvation dieting, and extreme surgeries (Dittmar, 2005; Tantleff-Dunn,

2001). Overexercising is working out for 2-5 hours daily (Harmon, 2009). Extreme surgeries included pectoral implants (Tantleff-Dunn, 2001), liposuction, and gastric bypass surgery. In my study, I referred to behaviors to modify one's body as body-enhancing behaviors.

Content and Organization of the Review

An extensive literature review about body image dissatisfaction among males is presented in this chapter. Chapter 2 starts with an introduction and literature search strategies followed by a section on the theoretical framework that pertains to body image dissatisfaction. The theoretical framework was social comparison theory. Definitions of body image and causes of body image dissatisfaction are also discussed. Various behaviors associated with body image dissatisfaction, such as anorexia, excessive exercising, and weight training are defined and described along with their consequences. The relationships between self-esteem and BID and self-esteem and body-enhancing behaviors are explained. The chapter concludes with a summary pertaining to information about body image dissatisfaction among males.

Literature Search Strategies

I conducted a literature search through the Walden University library's databases including PsycARTICLES, MEDLINE, CINAHL Plus with Full Text, Academic Search Premier, and SocINDEX with Full Text. Search terms included *body image dissatisfaction*, *men*, *social comparison theory*, *self-esteem*, *body image*, and *body disturbances*. Summarizing and analyzing peer-reviewed work provides the reader with the qualitative and quantitative material that informed the study. In addition, articles were

retrieved through Brooklyn College's library electronic database and the University of Phoenix library's library electronic database. Books were obtained from the Brooklyn Public Library.

Theoretical Framework

Theories of body image indicated that "what one thinks about the body may be more important than the objective reality of one's appearance" (Sarwer et al., 1998, p. 653). Sociocultural theory and social comparison theory represented some of the frameworks that have been used to describe body image (Barlett, Vowels, & Saucier, 2008; Morrison, Kalin, & Morrison, 2004). Sociocultural theory has been used to explain how culture identifies individuals, and social comparison theory has been used to explain how people see themselves in relation to other individuals. I used social comparison theory in my study; however, in the next section I briefly review sociocultural theory given its strong presence in the BID literature.

Sociocultural Theory

Although I used social comparison theory in my study, I present a background of sociocultural theory to aid in understanding the problem of BID in males. Individuals are influenced by external factors that may affect how they think and act. Experiences contribute to interpretations that are made by individuals about everyday situations. Sociocultural factors play an important role in body image development. Sociocultural theory suggests that the sociocultural environment strongly influences what individuals perceive as the ideal body image (Bozard & Young, 2016; Dittmar, 2005). The sociocultural environment includes mass media, peer groups, friends, and family. The

environment contributes to sociocultural pressures by depicting images of how individuals look, which in turn leads to individuals who feel disappointed about the appearance of their physical bodies and could lead individuals to participate in various behaviors such as overexercising, dieting, and undereating to achieve the desired look (Bozard & Young, 2016; Dittmar, 2005).

Social Comparison Theory

According to social comparison theory, an individual compares himself or herself to other individuals whom he or she believes have a better appearance (Festinger, 1954; Hobza & Rochlen, 2009; Klein & Goethals, 2002; Park & Salmon, 2005; Pompper et al., 2007). Comparing oneself to various people is one method that individuals employ to develop an image of self. Three components that are apparent in social comparison are self-evaluation, self- improvement, and self-enhancement (Krayer et al., 2007). Self-evaluation is described as an individual comparing his or her appearance to another person's appearance. Self- improvement is used to make the individual better regarding his or her appearance. Self-enhancement is making the individual's appearance seem better than other people's appearance.

Social comparison could have a negative or positive effect on individuals. Individuals may compare themselves to others who are more attractive, which could lower their self-esteem, or to others who are less attractive, which could increase their self-esteem. Social comparison is related to BID because individuals who compare themselves to others and notice flaws about themselves tend to take on negative behavioral actions to achieve their desired physical body (Barlett et al., 2008).

In a study to devise measures for upward and downward physical comparisons, O'Brien et al. (2009) surveyed 224 Australian freshmen college students, of whom 40% were males. Upward and downward physical comparison scales were used to measure how individuals looked at other individuals who were less or more attractive than themselves. O'Brien et al. found that individuals made more upward physical comparisons as opposed to downward physical comparisons. Downward comparisons were related to anti-fat attitudes in which individuals who made downward comparisons targeted fat individuals (O'Brien et al., 2009). Upward comparisons were negatively correlated with appearance evaluation, and downward comparisons were positively correlated with appearance evaluation. Individuals who made upward comparisons were more likely to have an eating disorder (O'Brien et al., 2009).

Adolescents are affected by social comparisons because they view peers, family, models, athletes, and other celebrities on a daily basis. Jones (2001) conducted a social comparison study that involved 7th and 10th graders who compared themselves to peers and celebrities. Four hundred fifteen students took part in the study (200 males and 215 females) and were asked questions about comparing themselves to peers and models. Participants completed the Body Dissatisfaction Scale from the Eating Disorder Inventory to report information regarding body satisfaction. Body mass index was computed for participants. Jones found that adolescent males who compared their weight and facial traits to peers and models experienced body dissatisfaction.

In a study addressing social comparison appraisals, Krayer et al. (2007) examined 20 adolescents (11 females and nine males). Volunteers were interviewed one on one for

about 45 minutes in a room within the school. Participants were most likely to compare themselves while interacting with media images. Males were less likely to discuss their body image dissatisfaction because it was considered "gay or feminine" (Krayer et al., 2007, p. 900).

Comparison to media images may be especially detrimental to the average male. Muscular men in action movies have increased throughout the years. Morrison and Halton (2009) examined 42 movies from 1980 to 2006 to determine whether there was an increase of men in action movies. Of the 159 actors examined, Morrison and Halton noticed that "76.1% were muscular; 65.4% were of low body fat; and 65.4% were estimated to be under the age of 40" (p. 65). The masculine characters were more likely to have sexual encounters, show aggression, and use weapons as opposed to nonmasculine characters (Morrison & Halton).

Literature Review Related to Key Variables and/or Concepts

For men, body image is tied to musculature (Olivardia et al., 2004). According to Grieve (2007), 22% of college males lifted weights three times or more per week to obtain muscles, and 53% tried to achieve a muscular appearance. Lynch and Zellner (as cited in Tiggemann, Martins, & Kirkbride, 2007) observed that 83.7% of college males preferred to have a muscular and lean figure. Olivardia et al. (2004) reported that college men saw themselves fatter and more muscular than their actual body image, and the men tended to choose a muscular body image from the Somatomorphic Matrix.

Morrison, Kalin et al. (2004) conducted a study in Nova Scotia, Canada with 1,543 male and female adolescents in 10th and 12th grades between the ages of 15 and 19

years. Morrison, Kalin et al. found that most males and females (72%) in their study viewed the ideal male body image as muscular, as opposed to 8% of males and females who labeled the ideal body image as slim. Males with a muscular chest were viewed as having the following characteristics: assertive, confident, athletic, sexually active, and popular; males with less of a muscular chest were characterized as lonely and depressed (Morrison, Kalin et al., 2004).

Kirkpatrick and Sanders (1978) conducted a study to determine whether body image assessments were based on gender and age of individuals. The study consisted of 500 individuals (249 females and 251 males) between the ages of 6 and 60 years who were grouped according to their ages. Participants were asked to group 40 descriptors into three categories: endomorph (fat), ectomorph (thin), and mesomorph (muscular). Participants between the ages of 19 and 25 years described mesomorph as "strong, best friend, fights, cheats, lots of friends, forgets, polite, happy, helps others, argues, brave, healthy, teases, naughty, good- looking, mean, smart, neat, and me" (Kirkpatrick & Sanders, 1978, p. 92). Endomorphic figures were negatively labeled. Individuals between the ages of 26 and 40 years described endomorphic and ectomorphic figures in an equal manner. As ages increased, the ectomorphic figure became negatively labeled more than the endomorphic. Ectomorphic figures for older individuals represented medical issues, and mesomorphic figures represented active and good health. Kirpatrick and Sanders concluded that mesomorphic figures were more respected by college students than endomorphic and ectomorphic figures.

Body image has become so important for some men that they are willing to significantly change their appearance. In 2001, 20% of males sought cosmetic surgery: "36,000 men reshaped their noses, 48,663 underwent liposuction procedures, 44,726 tightened the skin on their eyelids, 27,817 tried hair transplantations, 18,548 had their breasts reduced, and 106,056 injected botulinim toxins into their foreheads to forestall wrinkling" (Bryson, 2003, p. 255). This may not be surprising given that body image played a role in marriages in which individuals who experienced body dissatisfaction had sexual problems and experienced a decline in marriage satisfaction (Friedman, Dixon, Brownell, Whisman, & Wilfley, 1999).

Body Image Dissatisfaction

Several definitions of body image dissatisfaction have been noted in the literature. Some of the definitions include the following:

- seeing oneself as being too thin or too fat (Kostanski, Fisher, & Gullone, 2004);
- "the experience of negative thoughts and esteem about one's body" (Dittmar, 2005, p. 1081); and
- experiencing displeasure about one's appearance (Grogan, 1999).

Body dissatisfaction is the practice of negative thoughts and esteem that one may experience about his or her body that results in a variety of negative outcomes such as negative self-perception, depressed mood, and disordered eating (Dittmar, 2005, 2009). Most males are dissatisfied with their body shape, and they would like to either lose or gain weight and build their muscles. Pope et al. (2000) noted that males as young as 6

years old may experience body dissatisfaction. Males typically would like to gain 25 pounds in muscles and lose 8 pounds in fat (Farquhar & Wasylkiw, 2007; Olivardia et al., 2004). Males are usually dissatisfied with their chest, arms, and stomach, whereas females are dissatisfied with their lower body (McCabe & Ricciardelli, 2001; Sarwer et al., 1998). Silberstein, Striegel-Moore, Timko and Rodin (as cited in Furnham, Badhim, & Sneade, 2002) found that more men (46.8%) as opposed to women (4.4%) wanted to gain weight. Fifty to seventy percent of males experience body dissatisfaction (McCabe & Ricciardelli, 2001). Males as young as 9 years old expressed concern about their muscles not being defined in certain areas such as their chest, arms, and stomach (McCabe & Ricciardelli, 2001).

Drewnowski and Yee (1987) studied male and female college students' desired to lose or gain weight. The study consisted of 226 individuals (98 males and 128 females) where 26% of men considered themselves overweight, and 20.9% of men considered themselves underweight (Drewnowski & Yee). Exercising more than thirty minutes per day was practiced by 65.9% of men, and 29.3% of men had tried a reduced- calorie diet (Drewnowski & Yee). Forty- five percent of men wanted to lose an average of 7.6 lbs, and 40% of men wanted to gain an average of 11.1 lbs (Drewnowski & Yee).

Development of Body Image Dissatisfaction

Several factors, such as media, parents, and peers, may influence how an individual may feel about his or her body, and these causal factors are usually intertwined, such that peers and parents are influenced by media images as much as individuals. In accordance with social comparison theory, social pressures are connected

with body images that are seen on advertisements that usually consisted of "sexual images and scantily clad models" to promote their products (Barlett et al., 2008, p. 279). Individuals may see themselves in a better or worse way than they actually looked, which could influence how they feel and act around people and in society.

Pope, Philips, and Olivardia (2000) described the Adonis complex as males obsessed with their physical attributes. The Adonis complex was named after a Greek god named Adonis who portrayed an ideal masculine body (Bryson, 2003). Forty-six percent of men always think about their image (Cloud, 2000). Men experienced body dissatisfaction after viewing masculine and fit men on television, in magazines, or in person. The Adonis complex contributed to "a crippled masculine identity, chronic depression, compulsive behaviors, and often seriously impaired relationships with family members and loved ones" (Pope et al., 2000, p. 25). Men sought various methods to achieve an ideal body image like men in the media. Pope et al. (2000) mentioned various factors associated with the Adonis complex: (a) weightlifting and exercise compulsions, (b) Body Dysmorphic Disorder, (c) eating disorders, and (d) steroid abuse.

The literature on media images and BID among males is mixed. McCabe and Ricciardelli (2003b) mentioned that media is not significantly correlated to body image among male adolescents because they do not feel pressured by images that are presented by the media for them to gain or lose weight. Body dissatisfaction and media images showed no relationship when Green and Pritchard (2005) studied males. van den Berg et al. (2007) conducted a study with 2,516 individuals (1,386 females and 1,130 males) from the second part of Project Eat Among Teens (EAT- II) that studied the degree that

body comparison with media images interceded affiliations amid sociocultural variables, psychological factors, BMI, and body dissatisfaction. These researchers found no relationship between media comparisons and body dissatisfaction, which the authors deemed that interventions to help males with body dissatisfaction and media comparisons would not have a great effect (van den Berg et al., 2007).

However, in most other studies it is found that after male viewers witnessed muscular males in advertisements, they were vulnerable for developing negative body images (Barlett et al., 2008). Several of these studies are reported below.

Eighty-two undergraduate males participated in a study that assessed the outcome of media's interpretation of the ideal male body image (Leit, Gray, & Pope, 2002). Participants answered a demographic questionnaire and a questionnaire about magazine reading habits. Participants viewed ten neutral slides (slides not related to body image) and twenty slides about body image. Their responses were assessed with the Somatomorphic Matrix (SMM; Leit et al., 2002) to determine the ideal body shape, perception of average body shape for a male with the same age, and perception of the desired body to attract women. Leit et al. found that body dissatisfaction occurred when men were exposed to body images with desired muscles.

In a study to determine the effect of media on men's body image (Hobza, Walker, Yakushko, & Peugh, 2007), it was concluded that media body image negatively contributed to the view of physical characteristics, such as nose and cheeks are body parts that are unchangeable with dieting or exercising for men. Hobza et al. (2007) studied consisted of 94 undergraduate students (46 male students) from a Midwestern college

who answered questions on the Body-Esteem Scale (BES) and State Self-Esteem Scale (SSES). Participants were divided into three categories (image-neutral condition, physical-image condition, and resource-image condition) and viewed 25 magazine advertisement slides, answered BES and SSES, and tried to list slides from previous viewing. Physical Condition and Physical Attractiveness subscale components are unlikely to change for males. Upper Body Strength (UBS) subscale components are not long- term and constant because males could exercise to change their appearance. The study concluded that males who are influenced by media are prone to an eating disorder, body dysmorphia, excessive exercising, and steroid use (Hobza et al.).

The theoretical framework and research reviewed so far suggests that comparisons to others, including media images, may lead to body image dissatisfaction among men, as shown in Figure 1 below.

Figure 1. Comparison to others (not measures in the proposed study) leads to BID among some individuals.

Behaviors Associated With Body Image Dissatisfaction

Anorexia

About 10% of the disordered eating population consists of adolescent and adult males (Ricciardelli & McCabe, 2004). Specifically, the prevalence rate for anorexia nervosa among females is 0.5% and among males the prevalence rate is one-tenth of

females (DSM-IV-TR, 2000), 22.5 per every 100,000 males (Riemann, McNally, Meier, 1993).

According to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders-Text Revision* (*DSM–IV-TR*; American Psychiatric Association, 2000), anorexia nervosa is:

Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected); intense fear of gaining weight or becoming fat, even though underweight; disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight; and in postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles (pp.583-584).

A decrease in sexual desire and testosterone levels are associated with anorexia nervosa in males (Soban, 2006). Gaining weight, premorbid obesity, gender identity struggles, binging/purging actions, family conflicts, hormonal changes, obsessive - compulsive behavior, depression, problems with autonomy, and trust are related symptoms for anorexia (Frasciello & Willard, 1995).

Soban (2006) identified that homosexual men (42%) had a higher occurrence of anorexia than heterosexual men (6%) and a positive association exists with body dissatisfaction. The average age that males experience anorexia is 17.1 years old where they are faced with life changes such as education, career, and family (Soban, 2006).

Among college males, 20% have an eating disorder (Hobza & Rochlen, 2009). Feeling and looking thin is positively associated with high self-esteem.

In addition to homosexual men, anorexia nervosa is also associated with athletes who participate in sports that require lean body image, such as wrestling, running, swimming, and gymnastics (Soban, 2006). Weight classifications, body appearance, and body fat percentage are important factors with the above sports. Athletes who have to obtain and maintain required weight could put their bodies at risk for stress fractures, decrease in muscle mass, and infections. Anorexia is a serious disorder and men have to find a comfortable method to discuss their issue. Among anorexic individuals, 0.56% dies annually (Schoemaker, 2004).

Excessive Exercising

Some individuals are determined to exercise to obtain or maintain attractiveness, tone, and weight control (Furnham & Calnan, 1998). The findings on exercise and BID are mixed. Some have found that individuals who engage in exercising have positive body image as opposed to individuals who do not engage in exercising (Hausenblas & Fallon, 2006); others have found a negative association between body image and regular exercise (Hausenblas & Fallon, 2002). Excessive exercise, however, is when individuals engage in more exercising than normal and are psychologically affected when they do not exercise (Guidi et al., 2009).

Muscle dysmorphia is explained as an obsession with enhancing muscles (Pope et al., 2000). Alternate names for muscle dysmorphia are reverse anorexia and bigorexia (Leone, Sedory, & Gray, 2005). Bigorexia is described as getting large and muscular

(Leone et al., 2005). Men with muscle dysmorphia spend five hours a day judging their looks (Bonanti, 2008). Men have spent over four billion dollars (~ $2 billion on home gym equipment and ~$2 billion on gym memberships) to help them to achieve an ideal body image (Cloud, 2000).

Males who desired muscles participated in excessive exercising to reach their desired goal (Hausenblas & Fallon, 2002). Approximately 25% of males participate in excessive exercising (Hobza et al., 2007), which could become an addiction.

Six symptoms of exercise addiction are exercising between two to five hours in a day, exercising to burn calories consumed, prioritizing exercising everyday, interrupting daily schedule to exercise, seeing food as the enemy, and exercising becomes only hobby (Harmon, 2009). Exercise addiction is categorized as primary exercise addiction and secondary exercise addiction. Primary exercise addiction is observed in individuals who participate in excessive exercising to satisfy an urgent need for exercise (Hausenblas & Fallon, 2002). Secondary exercise addiction is noticed in individuals with an eating disorder who use excessive exercising to maintain weight and decrease body image disturbance (Hausenblas & Fallon). Among college males, 22% engaged in excessive exercising (Landow, 2006), and 46.8% intended to gain weight (Furnham & Calnan, 1998). Males participated in excessive exercising for health, competition and muscularity (Hausenblas & Fallon).

A major negative consequence of excessive exercising is a psychological breakdown that could develop into an eating disorder when individuals feel under intense pressure (Sharp et al., 1994). Additional negative consequences included separation from

family and friends, and an increase risk for serious injuries (Gulker, Laskis, & Kuba, 2001). Headaches, irritability, increased injury, lack of sleep, and consistent colds or other sickness are other consequences of excessive exercising (Massenburg, 2010). Withdrawal from exercise could lead to depression and guilt (McCabe & Ricciardelli, 2006), and some individuals are prescribed medication to treat their illness (Harmon, 2009).

Weight Training

Males utilized weight training practices to enhance their muscles to look more appealing (Duff, Hong, & Royce, 1999). Males tend to desire to have a "V-shape" with an ideal chest, upper body, waist, and weight (Furnham & Calnan, 1998; Landow, 2006). In a study to examine how male athletes view their appearances (Duff et al., 1999), males scored an average of 9.62 out of 15 on the Weight Training Index, which is composed of three questions: How often do you work out with weights?; how heavy do you lift when you weight train?; and compared to your teammates, how hard do you train in the weight room? Males who weight train excessively usually also experience body dissatisfaction and body image difficulties (Russell, 2002).

The additional literature review presented above suggests that comparisons to others, including media images, may lead to body image dissatisfaction among men, which in turn leads to body-enhancing behaviors, as shown in Figure 2 below.

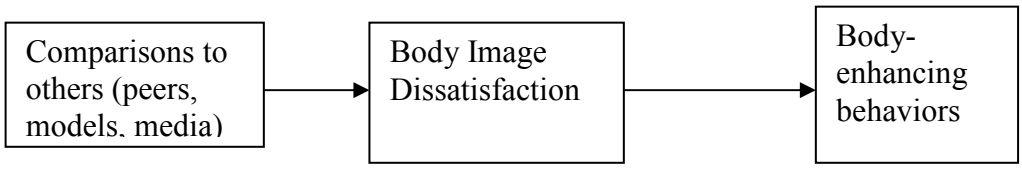

Figure 2. BID leads to body-enhancing behaviors.

Self-Esteem and BID

Self-esteem is a construct that may explain how BID leads to the aforementioned problematic body enhancing behaviors. Self-esteem is how individuals feel about themselves (Grogan, 1999). Chiu (1988) mentioned, "self-esteem is the evaluative component of self-concept" (p. 298). Factors that influence an individual's self-esteem levels are peers, parents, and media, the same factors that impact body image. Body image is central to self-concept and self-esteem, influencing psychological functioning and behavior (Dittmar, 2005; Filiault, 2007; Sarwer et al., 1998).

Farquhar and Wasylkiw (2007) examined the self-esteem of adolescents who view males in media. For the first part of the study, researchers categorized *Sports Illustrated* magazines into four categories (1970s, 1980s, 1990s, and 2000s). For the second part of the study, 107 male junior high school students from three schools in Canada examined men's magazines. Participants were characterized into three groups: idealized men presented body-as-object, idealized men presented body-as-process, and images of electronics. Farquhar and Wasylkiw (2007) described body- as- object as the measuring of distinct body parts based on appearance. Body-as-process is observing the body as what it can do as opposed to how the body looks (Farquhar & Wasylkiw). Researchers concluded that when participants looked at aesthetic males they experienced

low self-esteem and when participants looked at performance males they experienced positive self-esteem (Farquhar & Wasylkiw).

Body-esteem and body satisfaction are associated with self-esteem (Barlett et al., 2008; Grogan, 1999). Grossbard, Leigh, Neighbors, and Larimer (2009) researched gender as a moderator of the association between self- esteem and body image concerns among 359 (40.9% males) undergraduate freshmen. Grossbard et al. (2009) found that self- esteem influenced a desire for muscle mass among males. Olivardia et al. (2004) noted a significantly negative relationship between self-esteem and body dissatisfaction variables, such as muscle displeasure, muscle belittlement, displeasure with body looks and/or proportion; and feeling fat and/or out of shape.

Green and Pritchard (2003) studied the relationship between self-esteem and body dissatisfaction in adult men and women. The study consisted of 139 participants (94 females and 45 males) between the ages of 19 to 68 years old. The Body-Esteem Questionnaire consisted of fourteen items to measure body image. The Mass Media Influence Subscale of the Socialization Factors Questionnaire consists of ten items and was used to measure media influence. Closed ended questions were asked to determine family influence. The Rosenberg Self-Esteem Scale was used to measure self-esteem. Researchers distributed and mailed out nearly 200 questionnaires and received a response rate of 70%. Green and Pritchard (2003) concluded that body dissatisfaction was associated with age, family pressure, and self-esteem.

Tremblay, Inman, and Willms (2000) studied relationships between physical activity participation, self-esteem, body mass index, and academic performance among

sixth graders in New Brunswick. Individuals with high self-esteem were more likely to participate in physical activities (Tremblay, Inman, & Willms). Tremblay et al. (2000) noticed a significant relation between physical activity and self-esteem; an increase in energetic physical activity was associated with an increase in self-esteem; and an increase in physical activity was associated with a decrease in BMI.

McDonald and Thompson (1992) studied gender differences in reason for exercising, and relationships between exercise motivations, eating disturbances, body image dissatisfaction, and self-esteem. The researchers found that exercising for fitness is positively associated with self-esteem (McDonald & Thompson). In addition, McDonald and Thompson noted that higher exercising rate leads to lower eating disturbances.

The literature reviewed above shows relations among BID, self-esteem, and body-enhancing behaviors, however, most studies are correlational and not theory based, so the direction of those relationships are not always clear. In the present study I propose to test whether body image dissatisfaction among men leads to low self-esteem, which motivates individuals to engage in body-enhancing behaviors, as shown in Figure 3 below.

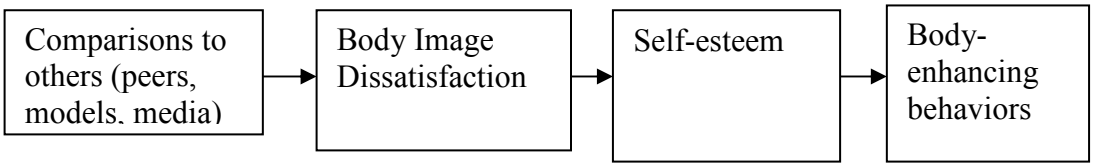

Figure 3. Self-esteem mediates the relationship between BID and body-enhancing behaviors.

Summary

In this chapter, sociocultural theory and social comparison theory provided the necessary contextual material to explain how and why individuals are dissatisfied with their bodies. Individuals started to realize the impact of body image in society during their late teens and early twenties and incorporate dieting and exercising in their lives. Body image contributed to how people think about themselves. Comparing oneself to others may have either a negative or positive effect on an individual, which could lead to low or high self-esteem. The way that individuals feel themselves could direct them to either exercise or eat food. Some individuals find various methods to help them with their body image, such as excessive dieting, surgery, and excessive exercising.

Although there is a growing body of literature on body image dissatisfaction among men, most of the studies only examined its prevalence and associated behaviors, and did little to further our understanding of factors that may be amenable to interventions for this population.

There is a need for more sophisticated studies about body image dissatisfaction among men. The present study expanded on male body image dissatisfaction research by focusing on males to determine the relationship between body image dissatisfaction, self-esteem and body enhancing behaviors. I used a meditational model suggested by the literature to examine the existing literature. This model, if supported, will have important implications for practice, research, and social change initiatives.

In chapter 3, the research method is explained, with a discussion of the procedures, participants, and data analysis.

Chapter 3: Research Method

Body image dissatisfaction is common among females and it is a growing concern among males (Russel, 2002; Schwartz et al., 2010; Tiggemann et al., 2007; van den Berg et al., 2007). Body image dissatisfaction is a precursor for self-esteem issues, which is a precursor for behaviors to enhance the body, which can sometimes cause harm to the individual. This chapter presents the research methods used to answer the research questions. In addition, this chapter presents a description of the participants, sample population, procedure, measures, methods, and ethical considerations for the study. This chapter includes a discussion of the research design and approach. The sample was drawn from men, and the purpose of the study was to examine the relationships among all variables and whether self-esteem mediates the relation between BID and body-enhancing behaviors among men. Descriptions of instrumentation and data collections tools are included. Data collection and analysis are also discussed. Measures taken for protection of participants' rights are summarized as well.

Research Design

A quantitative, cross-sectional design was used to examine the relationships among body image dissatisfaction, body enhancing behaviors, and self-esteem among men. The predictor variables were BID and self-esteem, and the outcome variables were body-enhancing behaviors (exercise and diet). Due to the cross-sectional correlational design, no conclusions can be made that one variable causes another variable. In this study, a conclusion cannot be made that BID causes low or high self-esteem. Instead, a

positive or negative relationship was depicted between variables, and a mediation analysis was conducted.

Target Population

I used a convenience sample of male students who were either in a college's participant pool or the members of a gym. Information collected from participants included age, weight, body mass index (BMI), marital status, and race. The sample consisted of 103 students, which was appropriate for a power of .80, alpha of 0.05, and a medium effect size with three predictors in a multiple regression analysis, which was the analysis plan for Hypothesis 4. The size determination for this sample was determined through G*Power (Faul, Erdfelder, Buchner, & Lang, 2009).

The recruited students demonstrated wider variance in age and race than in other more traditional universities (Lips, 2010). The composition of students included 25% White non-Hispanic, 12% Black non-Hispanic, 3% Hispanic, 1% Asian/Pacific Islander, ~1% American Indian/ Native American, 18% not reported, and 42% nonresident alien. Forty-two percent of students at the university are male. Thirty-seven percent are 24 years old and under. Ninety-four percent of undergraduate students are part time, and 6% of undergraduate students are full time. Thirty-two percent of graduate students are part time, and 68% of graduate students are full time. Requirements for participation in the study included being a male and being registered with the participant pool.

Sampling Method and Related Procedures

After receiving approval from the Institutional Review Board (05-27-11-0042821), the college's participant pool was contacted through e-mail with the study

details. Through the participant pool, each participant was assigned a personal identification code to protect his or her identity. Each participant had access to an informed consent form and questionnaires. An informed consent was the first page for individuals to read. The informed consent included the study's procedure, purpose, and confidentiality. My contact information was also on the informed consent form so that I could answer any questions that participants may have had about the study.

The informed consent form, Body-Esteem Scale, Rosenberg Self-Esteem Scale, Exercise Dependence Scale, Revised Restraint Scale, and demographic questionnaire were administered to participants online via Survey Monkey or through paper-and-pencil format. Online participants were able to access questionnaires through their emails by clicking on the survey link. Survey Monkey is a website that individuals use to participate in survey questionnaires. The participant pool website allowed me to connect this study posted on Survey Monkey to the participant pool. When the study was loaded into the participant pool, the link to survey monkey was included. When interested individuals reviewed the study, the link to the Survey Monkey survey was provided to them at that time.

By clicking the "next" button, participants agreed to the terms of the informed consent form. If participants did not agree to the informed consent form, then they were not eligible to participate in the study. When participants clicked "next" on the informed consent, they acknowledged that they understood and agreed to the terms of the study. Individuals who agreed to the informed consent were able to access self-reports online. Participants were not compensated for their participation.

Instrumentation

Questionnaires were administered to determine the level of BID and self-esteem among men.

Body Image Dissatisfaction

The Body-Esteem Scale, or BES (Franzoi & Shields, 1984), was used to determine body image among the participants. The BES (see Appendix B) was derived from the Body-Cathexis Scale (Secord & Jourard, 1953), which was tested on both male and female college students. Students answered questions based on a 5-point Likert scale in which 1 indicated "Have strong negative feelings," 2 indicated "Have moderate negative feelings," 3 indicated "Have no feeling one way or the other," 4 indicated "Have moderate positive feelings," and 5 indicated "Have strong positive feelings" (Franzoi & Shields, 1984). The Body-Esteem Scale has three subscales including upper body strength, physical attributes that contribute to the appearance of balanced body proportions, and general health (Franzoi & Shields, 1984). These were the three subscales examined in the present study for body-esteem.

For males, alpha coefficients were .81 for attractiveness, .85 for upper body strength, and .86 for general physical condition (Franzoi & Shields, 1984). For the BES, higher scores indicated higher body-esteem (Franzoi, 1994; Franzoi & Herzog, 1986; Franzoi & Shields, 1984). The scores for the subscales were summed as a total score in the present study. The total scores range from 35 to 175.

Self-Esteem

To measure general self-esteem, I used the Rosenberg Self-Esteem Scale, or RSES (Rosenberg, 1979). The RSES (see Appendix C) consists of 10 statements that provide one measure of global self-esteem (Grilo, Masheb, Brody, Burke-Martindale, & Rothschild, 2005). The RSES has a 4-point Likert scale in which 1 indicates "Strongly agree," 2 indicates "Agree a little," 3 indicates "Disagree a little," and 4 indicates "Strongly disagree" (Johnson & Wardle, 2005).

The development of the RSES was based on 5,024 high school juniors and seniors from 10 randomly selected schools in New York State (Rosenberg, 1965). Filiault (2007) indicated that the RSES is generally used in studies about male body image and has exceptional psychometric properties. The coefficient alpha for the RSES ranges from 0.72 to 0.92 and the test retest reliability coefficient is greater than 0.85 (Grilo et al., 2005). The internal consistency of the RSES is 0.89 (Grilo et al., 2005; Rosen et al., 1995). RSES depicts convergent validity of $r = .32$ for peer ratings (Demo, 1985; Rosen et al., 1995). For the RSES, higher scores indicate higher self-esteem (Crandall, 1973; Franzoi & Shields, 1984; Grilo et al., 2005; Keppel & Crowe, 2000). The scores range from 0 (minimum) to 30 (maximum). The scores for each item are summed to find an individual's score. For my study, scores from 15 to 25 indicated normal self-esteem, and scores less than 15 depicted low self-esteem (Crandall, 1973; Johnson & Wardle, 2005; Rosenberg, 1965). Self-esteem was analyzed as a continuous variable.

Body-Enhancing Behaviors: Exercise Dependency

To measure the rate of exercising among participants, the Exercise Dependence Scale (EDS; Hausenblas & Downs, 2002) was used. The EDS (see Appendix D) consists of 21 statements to measure exercise dependency. The criteria for substance dependence according to the Diagnostic and Statistical Manual-IV (American Psychiatric Association, 1994) were used to develop the EDS. Tolerance, withdrawal, intention effects, lack of control, time, reduction in other activities, and continuance were the criteria for substance dependence. Hausenblas and Downs (2002) described EDS as a "multidimensional theoretical-based measure of exercise dependence symptoms that distinguishes among individuals who are at-risk, have symptoms, or no symptoms for exercise dependence" (p. 390). A 6-point Likert scale ranging from always (1) to never (6) was used to measure participants' responses.

The development of the EDS was conducted on a total of 2,420 participants within five studies. The psychometric properties for EDS were from 0.71 to 0.92 (Terry et al., 2004). In the first study, the researchers sought to develop a scale that was able to contrast at-risk, symptomatic, and asymptomatic individuals and establish psychometric properties (Hausenblas & Downs, 2002). Hausenblas and Downs (2002) found a positive correlation between the Exercise Dependence Questionnaire and the EDS, $r = 0.69$, $p < 0.001$. Scoring 1-2 on three or more of the statements indicated exercise dependence (Hausenblas & Downs, 2002; Terry et al., 2004). Scoring 3-4 indicated symptomatic, and scoring 5-6 indicated asymptomatic (Hausenblas & Downs, 2002; Terry et al., 2004). The second study reinforced the psychometric properties from the first study. The third study

showed an internal consistency of alpha = 0.94. The fourth study showed a strong positive correlation between EDS and Obligatory Exercise Questionnaire, $r = 0.75$, $p < 0.05$ (Hausenblas & Downs, 2002). The internal consistency for the fifth study was alpha = 0.95, and a 7 day test retest reliability of $r = 0.92$, $p < 0.001$ (Hausenblas & Downs).

For this study, participants who scored 1-2 on three or more of the seven criteria indicated exercise dependence, participants who scored 3-4 were symptomatic, and participants who scored 5-6 were asymptomatic (Hausenblas & Downs, 2002). In the analyses, exercise dependence was examined as a continuous variable for the inferential analyses and as a categorical variable when describing the sample.

Body-Enhancing Behaviors: Dieting

To measure dieting behavior, I used the 10-item Revised Restraint Scale (see Appenix E). Herman and Polivy (1980) developed the Revised Restraint Scale that consists of 10 items. Four items focus on concern for dieting, and six items focus on weight fluctuation.

Cronbach's alpha for the Restraint Scale was .77 (Herman & Polivy, 1980). Concern for dieting ($\alpha = .76$) measures focused on dieting and eating, and weight fluctuation ($\alpha = .66$) measures focused on weight loss and gain (Tiggemann & Rüütel, 2001). Items 5, 6, 7, 8, and 9 were scored from 0 to 3, and items 1, 2, 3, 4, and 10 were scored from 0 to 4. The scores for each item were summed and a cutoff score of 14 separated unrestrained eaters from restrained eaters.

Demographic Questionnaire

Individuals answered questions about age, weight, height, marital status, and ethnicity. Answering the demographic questionnaire (Appendix F) enabled me to gather information about participants to determine the composition of this study. The measure for BMI was in kg/m^2 and was computed from height and weight of participants. The results are included in Chapter 4 as descriptive statistics.

Data Analysis Procedure

For this quantitative study, the mean and standard deviations of age, weight, and body mass index were calculated. Descriptive statistics indicated the demographic information, which included percentages of ethnicity and marital status and range in age. Demographic correlates of BES and RSES were determined among the sample. Chronbach's alpha was calculated for each scale. Detailed analyses of the various demographic characteristics related to BID were conducted so that a clear picture of what type of male student experienced BID could be presented. The results of the instruments and demographic questionnaire were entered into Statistical Package for Social Sciences (SPSS) Graduate Pack 17.0. A probability value of .05 was used to determine whether the values were statistically significant.

Research Questions and Hypotheses

This study contributes to the current research that exists about body image by adding information about how men feel about their bodies and how this is related to self-esteem and body-enhancing behaviors.

Research Question 1: Is there a relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale?

Null hypothesis (H_{1o}): There is no relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale.

Alternative hypothesis (H_{1a}): There is a relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale.

Research Question 2: What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale?

Null hypothesis (H_{2o}): There is no relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale.

Alternative hypothesis (H_{2a}): There is a relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale.

Research Question 3: What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale?

Null hypothesis (H_{3o}): There is no relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale.

Alternative hypothesis (H_{3a}): There is a relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale.

Research Question 4: Does self-esteem, as measured by the Rosenberg Self-Esteem Scale, mediate the relationship between BID, as measured by the Body-Esteem Scale, and body-enhancing behaviors, as measured by the Revised Restraint Scale and Exercise Dependence Scale, among males?

Null hypothesis (H_{40}): Self-esteem does not mediate the relationship between BID and body-enhancing behaviors among males.

Alternative hypothesis (H_{4a}): Self-esteem mediates the relationship between BID and body-enhancing behaviors among males.

Correlations and multiple regressions were used to evaluate the hypotheses. For the final hypotheses, a mediation analyses was conducted following Baron and Kenny's (1986) three regressions was used to examine the four steps of mediational analyses. In the first and second steps, in separate regressions, a significant relation must be demonstrated between both the predictor (BID) and the outcome (behavior) and between the predictor and the mediator (self-esteem). In the third and fourth steps, a hierarchal linear regression was used to establish a relation between the mediator and the outcome

variable and a reduction in the relation between the predictor and outcome variable when controlling for the mediator. Statistical significance of the reduction in relationship in the presence of the mediator was examined using a variation of the Sobel significance test (Preacher & Hayes, 2004).

Ethical Considerations

Per Walden University's Institutional Review Board (IRB) guidelines, participants completed an informed consent that specified confidentiality conditions, the nature of the study, and the procedures of the study. Participants were not forced to participate in the study and were not penalized for not participating. Information collected for the study was only viewed by the researchers. Names of the participants were not collected. Information will be stored and secured in both computer and paper files. As with any psychosocial study, some of the questionnaires or items on the questionnaires may potentially cause distress to participants. However, it is expected this will be minimal.

Summary

This chapter described the methods that were used to examine the research question: Does self-esteem mediates the relationship between body image dissatisfaction and health related behaviors among males? The research design was included with regard to the research question and hypothesis. In addition, the chapter described the setting and sample by describing where the population was drawn from, the sampling method, the sample size, eligibility criteria for study participants, and characteristics of sample size. Instrumentation and materials were discussed. Data collection and analyses were

explained. Measures taken for protection of participants' rights were summarized. Chapter 4 explains results. Chapter 5 discusses the findings, presents conclusions drawn from this study, and provides recommendations for future studies.

Chapter 4: Results

The purpose of this study was to improve the understanding of the relationships among BID, body-enhancing behaviors, and self-esteem in males. I examined whether self-esteem mediated the relationship between BID and body-enhancing behaviors in this population. Frequencies and percentages were examined for nominal variables of interest, such as age, weight, height, marital status, and ethnicity. Descriptive statistics were examined for continuous variables of interest, including self-esteem, exercise dependency, and dieting behavior. I analyzed the results using multiple regression equations. Significance for the linear regression equations was established at the generally accepted level of $p = .05$.

Results of one of the linear regressions indicated a significant relationship between self-regulation and body-enhancing behaviors. A significant relationship was also indicated between body image dissatisfaction and body-enhancing behaviors. Results also revealed a significant relationship between body image dissatisfaction and self-esteem and a significant relationship between body image dissatisfaction and dieting behaviors. This chapter includes the statistical findings of the data collection process.

Data Collection

Data were collected online through Survey Monkey and included 43 participants. I specifically targeted males, but some females participated. I also interviewed 64 males from local gyms. The data collection process from Survey Monkey and local gyms took 2 months. The data from Survey Monkey were saved on a password-protected file on my

computer. Completed paper questionnaires were placed in a folder and stored in a locked file cabinet.

Before data analysis was initiated, it was essential to perform preliminary screening of data using SPSS. The preliminary screening included, but was not limited to, the examination of data for accuracy, omissions, and possible outliers. The final total sample was 103 male participants. Data were collected from 39 participants (37.9%) from the participant pool and 64 participants (62.1%) from local gyms. Initially, when the research was conducted, the sample consisted of 107 participants. However, the inclusion criteria required male participants. Therefore, four participants (3.74%) were omitted from the sample because they reported that they were female. The normality of the research variables was established using the Kolmogorov Smirnov test.

Descriptive and Demographic Characteristics

Data analysis was conducted to determine whether outliers were present. The exclusion of and 83 inches tall participant resulted an average height of 70.17 inches (*SD* = 3.45). Removing the participant who was 61 inches tall resulted an average height of 70.39 inches (*SD* = 3.55). Removing the height outliers of 61 inches and 83 inches resulted in an average height of 70.27 inches (*SD* = 3.34). The mean and *SD* did not change substantially when one or both height outliers were removed. The BMIs ranged from 18.65 to 65.42. Removing the participant who weighed 456 pounds produced an average weight of 209.93 lbs (*SD* = 50.50). The mean and *SD* did not change substantially (*SD* = 5.34) when the weight outlier was removed. The means and standard deviations for participant demographics are provided in Table 1.

Table 1

Means and Standard Deviations for Participants

Demographic	*M*	*SD*	Min	Max
Age	40.92	11.97	24	79
Height (in inches)	70.30	3.66	61	83
Weight (in pounds)	212.00	55.84	125	456
BMI	30.14	7.42	18.65	65.42

All of the participants in this study were male. The frequencies and percentages for marital status and ethnicity are provided in Table 2.

Table 2

Frequencies and Percentages for Demographics

Demographic	*n*	%
Marital status		
Divorced	6	5.8
Living with partner	13	12.6
Married	47	55.3
Separated	4	3.9
Single/never married	23	22.3
Ethnicity		
Black	26	25.2
White	57	55.3
Hispanic/Latino	11	10.7
Native American	1	1.0
Asian, Asian American	1	1.0
Other	7	6.8

Descriptive Statistics of Continuous Variables

To answer the research questions, four variables were analyzed: body image dissatisfaction (BID), self-esteem, exercise, and dieting. The BID variable was analyzed using the Body-Esteem Scale. Participant scores on the BID ranged from 62 to 175 (M = 117.74, SD = 23.63). The self-esteem variable was analyzed using the Rosenberg Self-Esteem Scale. Participant scores on this measure ranged from 10 to 32 (M = 19.74, SD = 5.27). The exercise variable was analyzed using the Exercise Dependence Scale-21. Participant scores ranged from 21 to 106 (M = 48.20, SD = 20.56).

The dieting variable was analyzed using the Revised Restraint Scale. Participant scores ranged from 8 to 38 (M = 22.50, SD = 6.50). The scores for each item were summed and a cutoff score of 14 separated unrestrained eaters from restrained eaters. However, one participant did not answer two questions from the Revised Restraint Scale; therefore, a score of 8 was achieved. The score was still considered valid because it was the true score of a participant who expressed his opinion about questions on the scale. Participant's answers were not excluded from analysis because answers contributed with how males view eating. Both the skewness and kurtosis values were within a satisfactory range. The mean values and the standard deviations for research variables are reported in Table 3.

Table 3

Means and Standard Deviations for Data Variables

Data variable	*M*	*SD*	Chronbach's alpha	# of items	*skewness*	*kurtosis*
BID	117.74	23.63	.94	35	.42	.10
Self-esteem	19.74	5.27	.82	10	-.12	-.82
Exercise	48.20	20.56	.94	21	.60	-.003
Dieting	22.50	6.50	.82	10	-.02	-.60

Most of the participants in the study reported an average sense of self-esteem (67%) and reported being controlled eaters (89.3%). Most of the participants reported a level of exercise dependence (60.2%). Most of the participants reported having normal BID (68.9%). The frequencies and percentages for these cutoffs are provided in Table 4.

Table 4

Descriptive Statistics of Cutoffs

Score		*n*	%
Self-Esteem			
	Low	18	17.5
	Medium	69	67
	High	16	15.5
Dieting			
	Unrestrained	11	10.7
	Restrained	92	89.3
Exercise			
	Exercise dependence	62	60.2
	Symptoms of dependence	34	33
	No symptoms of dependence	7	6.8

Pearson correlational coefficients were calculated to analyze the relationships between age and BMI, $_{r(102)} = .11$, ($p = .265$). There was no statistically significant correlation between age and BMI. However, there was a statistically significant negative relationship between BMI and BID, $r_{(102)} = -.39$, ($p < .001$). There was also a statistically significant positive relationship between BMI and self-esteem, $r_{(102)} = .30$, ($p = .002$). The relationship between BMI and dieting was also statistically significant, $r_{(102)} = .35$,($p < .001$), as shown in Table 5.

Table 5

Correlation Between Study Variables, Age, and BMI

	BID	Self-esteem	Exercise	Dieting
Age	.02	-.14	.09	.04
BMI	-.39*	.30*	-.09	.35*

Note. * $p < 0.05$. ** $p < 0.01$.

Results

Research Question 1

RQ1: Is there a relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale?

The consequent hypotheses were:

$H1_0$: There is no significant statistical relationship between BID and self-esteem of the participants as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale.

$H1_a$: There is a significant statistical relationship between BID and self-esteem of the participants as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale

To answer RQ1, I calculated a Pearson Product Moment correlation between BID and self-esteem. The results showed a statistically significant negative relationship between BID and self-esteem, $r_{(103)} = -.31$, $p < .001$. Therefore, the null hypothesis was rejected in favor of the alternative hypothesis. The results of this study showed that for every unit increase in BID, there was about a one-third decrease in self-esteem.

Research Question 2

RQ2: What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale?

The corresponding hypotheses were:

$H2_0$: There is no statistically significant relationship between men's body-enhancing behaviors and self-esteem.

$H2_a$: There is a statistically significant relationship between men's body-enhancing behaviors and self-esteem.

To answer RQ2, I conducted a linear regression to determine whether there was a relationship between men's self-esteem and their routine of exercise and dieting. The results showed a significant relationship between self-esteem and body-enhancing behaviors, $p = .015$. Participants predicted self-esteem was equal to 13.059 + .187 (dieting) + .049 (exercising). The calculated effect size was $f^2 = 0.11$. This regression was statistically significant, $F(2, 98) = 4.415$, $p = .015$. Therefore, the null hypothesis was

rejected in favor of the alternative hypothesis. The results of this study showed that body-enhancing behaviors can statistically significantly predict the dependent variable of self-esteem

Research Question 3

RQ3: What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale?

The corresponding hypotheses were:

$H3_0$: There is no statistically significant relationship between men's body-enhancing behaviors and BID.

$H3_a$: There is a statistically significant relationship between men's body-enhancing behaviors and BID.

To analyze RQ3, a linear regression was conducted to examine whether there was a relationship between men's BID and body-enhancing behaviors, such as exercise and dieting. The results showed there was a significant relationship was present between BID and body-enhancing behaviors, $F(2, 98) = 18.485$, $p = .000$. Participants predicted BID is equal to 138.511-1.511(dieting) + .283 (exercising). The calculated effect size is $f^2 = 0.11$. Therefore, the null hypothesis is rejected in favor of the experimental hypothesis. The results of this study show that the body-enhancing behaviors can statistically significantly predict the dependent variable, BID.

Research Question 4

RQ4: Does self-esteem, as measured by the Rosenberg Self-Esteem Scale, mediate the relationship between BID, as measured by the Body-Esteem Scale, and body-enhancing behaviors, as measured by the Revised Restraint Scale and Exercise Dependence Scale, among males?

The corresponding hypotheses were:

$H4_0$: Self-esteem does not mediate the relationship between BID and body-enhancing behaviors among males.

$H4_a$: Self-esteem does mediate the relationship between BID and body-enhancing behaviors among males.

To analyze RQ4, linear regressions were held to analyze whether self-esteem mediates the association between BID and each body-enhancing behavior (exercise and dieting) among males. The results showed a significant relationship between BID and self- esteem, F (1,101) = 10. 575, p=.002. Participants predicted BID is equal to 144.996 -1.381 (self-esteem). The calculated effect size is f^2= 0.12. This result demonstrates that for this study, self-esteem can statistically significantly predict the dependent variable, BID.

The results showed a non-significant relationship between self-esteem and exercise, F (1,100) =2.987, p=.087. Participants predicted that self-esteem is not equal to 35.091+.666 (exercise). The calculated effect size is f^2= 0.10.

The results showed a significant relationship between self-esteem and dieting, F (1, 100) = 4.591, p=.035. Participants predicted self-esteem is equal to 17.406 +.259 (dieting). The calculated effect size is f^2= 0.10.

The results showed a significant relationship between BID and exercise, F (1,100) =8.827, p= .004. Participants predicted BID is equal to 19.157+.247 (exercise). The calculated effect size is f^2= 0.10. This result shows that BID can statistically significantly predict the dependent variable, exercise.

The results showed a significant relationship between BID and dieting, F (1,100) = 26.713, p= .000. Participants predicted BID is equal to 37.629 -.129 (dieting). The calculated effect size is f^2= 0.10. This results shows that dieting can statistically significantly predict the dependent variable, BID.

Summary

A complete analysis of the data was presented in this chapter. The chapter began with a brief description of the participants who took part in the study. This description was followed by a presentation of the study variables which were analyzed in detail to present the hypotheses. The following variables were discussed: BID (Body Image Dissatisfaction) variable, self-esteem variable, exercise variable, and dieting variable. Based on the initial results, further analyses were also conducted. BID was compared with self-esteem on the basis of the Body-Esteem Scale and Rosenberg Self-Esteem Scale. Results showed that increased BID was significantly related to lower self-esteem; thus, having a higher feeling of body image dissatisfaction is associated with the low self-esteem of the individual. Higher self-esteem was observed to be significantly related to

increased sense of controlled eating. When BID was compared with exercise and diet, it was observed that a statistically significant positive relationship existed with exercise, whereas a statistically significant negative relationship existed with dieting. According to these analyses, increased BID leads to an excessive routine of exercise, while increased BID has no impact on the dieting habit of the individual.

The mediation regression equations were conducted and it was observed that the mediation regressions for self-esteem mediating the relationship between BID and exercising exhibited that self-esteem has a positive effect on the relationship with BID, and is significant for exercise. This result indicated that providing increased self-esteem can mediate the negative effects of only BID, and enhance the routine of exercise. Similarly, the mediation regression was evaluated for self-esteem mediating BID and dieting. It exhibited that self-esteem was a positive predictor in the relationship with BID, and significant for dieting. The outcome is that increased self-esteem can mediate the negative effects of only BID, and enhancing the habit of dieting. Self-esteem had a negative effect on the relationship with exercise. The relationship between self-esteem and exercise was not significant. Self-esteem was positive predictor in the relationship with dieting.

In Chapter 5, the discussion and interpretation of the results and findings analyzed and interpreted in Chapter 4 will be discussed in further detail. The potential impact of these results on positive social change will be presented. Chapter 5 will also outline recommendations for future research efforts.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to examine the relationships among BID, body-enhancing behaviors, and self-esteem in males. In this chapter, I summarize the main findings and conclusions. I provide a brief overview of the study and the results. These results are followed by the limitations of the study and recommendations for future research. I also discuss the implications of the findings within this specific social context and describe any potential effects on positive social change.

In addition to examining the relationships among BID, behaviors, and self-esteem, I also investigated whether self-esteem mediated the relationship between BID and body-enhancing behaviors within this population. The research questions were as follows:

1. Is there a relationship between BID and self-esteem among men as measured by the Body-Esteem Scale and Rosenberg Self-Esteem Scale?
2. What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and self-esteem among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Rosenberg Self-Esteem Scale?
3. What is the relationship between body-enhancing behaviors (concerned dieting and excessive exercising) and BID among males as measured by the Revised Restraint Scale, Exercise Dependence Scale, and Body-Esteem Scale?
4. Does self-esteem, as measured by the Rosenberg Self-Esteem Scale, mediate the relationship between BID, as measured by the Body-Esteem Scale, and body-

enhancing behaviors, as measured by the Revised Restraint Scale and Exercise Dependence Scale, among males?

Interpretations of the Findings

This quantitative, cross-sectional study was designed to determine whether there were significant relationships among body image dissatisfaction, body-enhancing behaviors, and self-esteem and whether self-esteem mediated the relationship between body image dissatisfaction and diet and exercise behaviors.

The data showed that men with higher body image dissatisfaction also had lower self-esteem, and that men who restricted their eating had lower self-esteem and higher body image dissatisfaction. There was no relationship between self-esteem and exercise behavior, but those who exercised more had higher body dissatisfaction. Self-esteem did not serve a mediating role between body image dissatisfaction and exercise and diet behavior in this sample. Results for self-esteem and exercise did not show significance. This result could have occurred because of the sample that was studied. Everyone exercises for different reasons, and the sample probably may not have exercised to boost self-esteem.

The study filled a gap in the body image literature in that prior research has been focused primarily on females (Akan & Grilo, 1995; McLauren & Gauvin, 2002; Sive-Ramirez, 2001). Scant research had been conducted on the relationship between men's body image and body-enhancing behaviors (diet and exercise), and the potential variables that may serve to explain these relationships (Cash & Pruzinsky, 2002). Previous research (Markey & Markey, 2005) indicated that men involved in excessive body-enhancing

activities exhibited negative outcomes such as dysfunctional behaviors, surgery, drugs, depression, illnesses, and even death. In this study, I tested a mediation model to determine to what degree BID and body-enhancing behaviors occurred through self-esteem as a mediator.

Relationship Between BID and Self-Esteem

One of the major factors that determines body dissatisfaction in men is self-esteem (Burlew & Shurts, 2013; Dittmar, 2005), and results from my study indicated that these two variables were related. These results are consistent with previous studies (Filiault, 2007; Sarwer et al., 1998) and suggest that body image is highly related to self-concept and self-esteem. The present study also adds to the literature regarding the BID of an ethnically diverse sample of men by depicting how BID and ethnicity can be related to male self-esteem. It should be noted, however, that this study has low interpretative value for Native American and Asian American men as the representation of both of these ethnic groups was too low to be reliably measured.

Body-Enhancing Behaviors, Self-Esteem, and Body Image Dissatisfaction

The data showed a significant relationship between dieting/restricted eating and both self-esteem and BID. According to Markey and Markey (2005), dieting is a method used by men who suffer from body dissatisfaction to achieve a perfect body. My findings support previous studies (Akan & Grilo, 1995; McLauren & Gauvin, 2002; Sive-Ramirez, 2001) that indicated dieting as a component of male self-esteem and BID. One reason the relationship between dieting and self-esteem and BID is likely is that many men consider themselves to be heavier than their friends consider them, which leads to

low self-esteem, as suggested by Pope and Olivardia (2000). Sive-Ramirez (2001) notes that body dissatisfaction plays a significant role in the development of eating disorders. Among men, the most common health-related behaviors are exercising and dieting (Markey & Markey, 2005). Men are willing to spend significant sums of money and engage in unhealthy behaviors to achieve an ideal body (Dittmar, 2005).

Although this was a cross-sectional study in which causation could not be determined, results indicated that high BID was related to low self-esteem. This same relationship was not found for exercise, suggesting that in this sample of men, self-esteem does not mediate the relationship with exercise. Males in the study represented a small sample of the population, and this particular sample did not exercise to increase self-esteem. Some males exercise for various reasons, such as for health or a hobby. In addition, some males exercise to attract a significant other, increase strength for a fight, and satisfy an addiction.

Males are exposed to other men who are considered as having an ideal body image, which lead to concerns about themselves because they want to look perfect for their mates, peers, family, and other people who see them. Males who are unhappy with their appearance may exhibit dissatisfaction with themselves. Unhappy and dissatisfied males may resort to various methods to find satisfaction with their bodies (Dittmar, 2005). Self-esteem did not play a role with how often or how little an individual exercised. A possible reason for the relationship between exercise and BID is men consider themselves unattractive, which leads them to exercise to achieve a desired appearance by losing weight, gaining weight, and/or gaining muscles (Burlow & Shurts,

2013; Dittmar, 2005). When the desired appearance is achieved, some males may feel fulfilled and successful while other males may feel unfulfilled and unsuccessful.

Individuals who identify themselves as unfulfilled and unsuccessful may develop mental or physical illness, or use hazardous techniques to feel satisfied. Peters and Phelps (2001) observed that individuals use various methods such as programs, devices, books, medicines, supplements, and drugs to assist with achieving their desired figure. Individuals who used steroids were unsatisfied with their appearance and desired more muscles (Peters & Phelps, 2001). Some individuals started to use supplements to assist with body image throughout the teen years (Muller, Gorrow, Schneider, 2009). Muller et al. (2009) mentioned that 4.7% of teen males used a weekly supplement to increase muscle mass.

Limitations

The implications for this study pertain to both theory and practice. In this study, I addressed how body image dissatisfaction played a prominent role in pursuing and engaging in negative health behaviors, such as restricted eating and excessive exercise. Researchers have found that individuals' dissatisfaction with their appearance is one of the strongest predictors of disordered eating, exercise, willingness to undergo cosmetic surgical procedures, tanning, smoking to control weight, and dietary supplement usage (Markey & Markey, 2005). Accordingly, I examined the relationships among specific variables, where the existing research presented only a limited understanding, such as the relationship between men's body image and body-enhancing behaviors, and potential variables that may explain this relationship.

When participants complete questionnaires, it is not guaranteed that respondents will truthfully answer questions. False answers could lead to false results. Participants could falsify answers because they want to provide the expected answers or they are ashamed of the answers. Other possibilities for false answers on questionnaires were participants checking another answer if their initial answer was not on the questionnaire; participants may not have taken the necessary time to thoroughly think about questions and answer, and participants may have been tired after reading a lengthy questionnaire and may have decided to choose any answer to quickly finish.

The United States Census Bureau (2015) reported that the percentages of Black men and Hispanic men in the United States are 13% and 7% respectively. This study included 25.2% Black men and 10.7% Hispanic men, which is higher than the general population. Even though this study contained a well distributed sample, a limitation was age. To assess the impact of these variables and the consequences of their relationships on adult males, I limited the study population to participants ranging from 24 to 79 years of age. Therefore, my results are not applicable to men younger than 24 years. Moreover, the mean age for this sample was 41 years. Therefore, results may be more applicable for middle-age men. Implications for younger adults or adolescents require further research to determine whether self-esteem mediates exercise and dieting. Because this study included low representation of Native American and Asian American men, future researchers should include higher percentages of Native American and Asian American males to enhance generalizability.

Recommendations for Future Research

Further research could address the relationship among younger men belonging to specific racial and ethnic groups including how their environments, socioeconomic status, and cultural backgrounds affect body satisfaction and self-esteem. Understanding the influence of cultural differences and social norms on ideal body types may also contribute to this field of research. Studies of this nature could provide a more definitive understanding of how body dissatisfaction develops among men, and characteristics of men who develop body dissatisfaction.

Future research with younger adults or adolescents could address what factors (cartoons, games, friends, and opposite sex) contribute with exercising and dieting, and how they affect self-esteem. Future research efforts could address whether self-esteem alters exercising and/or dieting patterns or whether exercising and/or dieting alters self-esteem.

Further studies might address a measurement of exercise addiction. Exercise addiction involves exercising between 2 and 5 hours a day, exercising to burn calories consumed, prioritizing exercising every day, interrupting daily schedule to exercise, seeing food as the enemy, and exercising becomes only hobby (Harmon, 2009). Because I did not measure exercise addiction, I could not examine how it may have influenced self-esteem mediating body image and body-enhancing behaviors. The inclusion of exercise addiction in future studies may help researchers understand why males exercise for 2 to 5 hours a day. Researchers may provide further understanding of self-esteem mediating body image and body-enhancing behaviors.

Parents and spouses/partners should be aware of the influence that media has on society and should strive to serve as positive role models for males of all ages. Mates, peers, counselors, and doctors should explain to these individuals that media images are not ideal for everyone and most of the images are unrealistic because of body types. Creating a positive environment, as early as possible, in which young males can openly communicate their feelings about their body satisfaction, self-esteem, and everyday struggles may serve to mitigate the harmful influence of media regarding body dissatisfaction. To understand body dissatisfaction better, young men should speak to other individuals and discuss why they are dissatisfied with their physical appearance. A useful strategy to overcome the influence of the media may be to publicize and embed messages to young males from an early age. For example, positive messages regarding masculinity, what features men should have, and what it means to be a man could be incorporated into video games, action figures, television, and films. Incorporating body image storylines in cartoons may make young individuals aware of the topic. Magazine advertisements, television shows, and movies could include a variety of people in their products. Educators could implement strong policies that deter bullying of students because of their physical appearance. Counselors could provide educators and parents with training on body dissatisfaction to assist them in dealing with struggling males. Libraries could keep current books on body image on shelves. Doctors could ask patients questions to assess whether patients have body dissatisfaction issues before it is too late. Awareness of body dissatisfaction could increase, and this may help individuals realize

the severity of body dissatisfaction issues. These solutions may serve to reduce body image dissatisfaction among males.

Implications

This study contributes to social change by helping practitioners to identify the relationships among BID, self-esteem, and body-enhancing behaviors in men who focus on their physical appearance. Results from this study may be useful to practitioners in addressing issues of patients that include undereating, overeating, overexercising, and eating disorders. These results may help researchers to expand research on self-esteem and body image for males. Moreover, this study contributes to Walden University's mission for social change by assisting researchers and practitioners in understanding this problem in a more specific manner. Effective interventions are required on a broader scale to treat this problem. Males should be encouraged to seek the intervention of experienced counselors and/or therapists to overcome their body image dissatisfaction problem. Cognitive behavior therapy (CBT) may be effective in improving body image dissatisfaction (Grilo, Masheb, & Crosby, 2012). Through CBT techniques, skilled therapists assist their patients in exploring their perceptions of their body and how this perception impacts their lives, including self-esteem. CBT therapists have had encouraging results in helping their patients develop the tools to reduce or eliminate negative self-esteem stemming from body image dissatisfaction (Grilo et al., 2012).

Conclusion

The purpose of this cross-sectional study was to examine the relationships among BID, body-enhancing behaviors, and self-esteem in males. This study highlighted the

most prevalent issues that men encountered in their attempts to attain perfect body shape through dieting and excessive exercising. Findings suggested that men may have negative perceptions about their bodies or low self-esteem resulting in dissatisfaction with their body shapes. These results indicated a relationship between dieting and exercise with BID. When BID is present, dieting and exercise increase. These results also suggested a direct relationship between BID and self-esteem. When BID is present, self-esteem decreases.

Media may play a significant role in motivating men to push themselves toward attaining a perfect body shape. Body image dissatisfaction involves numerous side effects (Burlew & Shurts, 2013; McLauren & Gauvin, 2002). Negative feelings and thoughts may lead to anxiety, frustration, and health disorders (Filiault, 2007). Because of body dissatisfaction, men may be inclined to exercise and diet excessively.

Although researchers have focused on eating disorders and self-esteem in women, this study was one of the first to address body dissatisfaction among men. Stakeholders including the media, educators, and physical and mental health practitioners need to be more aware of male self-esteem levels and recognize dangerous eating and dieting habits as indicators of BID. Results from this study could lead to positive social change by helping to improve the lives of men affected by BID by informing them about factors that may affect BID and/or self-esteem. Stakeholders should not assume that only females experience body image issues, and should pay more attention to males who are unhappy with their looks.

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Appendix A: Informed Consent Form

Appendix B: The Body-Esteem Scale

The Body-Esteem Scale (Franzoi & Shields, 1984)

Instructions: On this page are listed a number of body parts and functions. Please read each item and indicate how you feel about this part or function of your own body using the following scale:

1 = Have strong negative feelings
2 = Have moderate negative feelings
3 = Have no feeling one way or the other
4 = Have moderate positive feelings
5 = Have strong positive feelings

1.	body scent	_____
2.	appetite	_____
3.	nose	_____
4.	physical stamina	_____
5.	reflexes	_____
6.	lips	_____
7.	muscular strength	_____
8.	waist	_____
9.	energy level	_____
10.	thighs	_____
11.	ears	_____
12.	biceps	_____
13.	chin	_____
14.	body build	_____
15.	physical coordination	_____
16.	buttocks	_____
17.	agility	_____
18.	width of shoulders	_____
19.	arms	_____
20.	chest or breasts	_____
21.	appearance of eyes	_____
22.	cheeks/cheekbones	_____
23.	hips	_____
24.	legs	_____
25.	figure or physique	_____
26.	sex drive	_____
27.	feet	_____
28.	sex organs	_____

29. appearance of stomach _____
30. health _____
31. sex activities _____
32. body hair _____
33. physical condition _____
34. face _____
35. weight _____

Appendix C: Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

1.	On the whole, I am satisfied with myself.	SA	A	D	SD
2.*	At times, I think I am no good at all.	SA	A	D	SD
3.	I feel that I have a number of good qualities.	SA	A	D	SD
4.	I am able to do things as well as most other people.	SA	A	D	SD
5.*	I feel I do not have much to be proud of.	SA	A	D	SD
6.*	I certainly feel useless at times.	SA	A	D	SD
7.	I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8.*	I wish I could have more respect for myself.	SA	A	D	SD
9.*	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10.	I take a positive attitude toward myself.	SA	A	D	SD

Appendix D: Exercise Dependence Scale- 21

Exercise Dependence Scale-21

Hausenblas & Downs (2002)

Instructions. Using the scale provided below, please complete the following questions as honestly as possible. The questions refer to current exercise beliefs and behaviors that have occurred in the past 3 months. Please place your answer in the blank space provided after each statement.

1 2 3 4 5 6
Never Always

1. I exercise to avoid feeling irritable._____
2. I exercise despite recurring physical problems._____
3. I continually increase my exercise intensity to achieve the desired effects/benefits._____
4. I am unable to reduce how long I exercise._____
5. I would rather exercise than spend time with family/friends._____
6. I spend a lot of time exercising._____
7. I exercise longer than I intend._____
8. I exercise to avoid feeling anxious._____
9. I exercise when injured._____
10. I continually increase my exercise frequency to achieve the desired effects/benefits._____
11. I am unable to reduce how often I exercise._____
12. I think about exercise when I should be concentrating on school/work._____
13. I spend most of my free time exercising._____
14. I exercise longer than I expect._____
15. I exercise to avoid feeling tense._____
16. I exercise despite persistent physical problems._____
17. I continually increase my exercise duration to achieve the desired effects/benefits._____
18. I am unable to reduce how intense I exercise._____
19. I choose to exercise so that I can get out of spending time with family/friends._____
20. A great deal of my time is spent exercising._____
21. I exercise longer than I plan._____

Appendix E: Revised Restraint Scale

Revised Restraint Scale Herman & Polivy (1980)

1. How often are you dieting?
   Never Rarely Sometimes Often Always
2. What is the maximum amount of weight (in pounds) that you have ever lost within one month?
   0-4 5-9 10-14 15-19 20+
3. What is your maximum weight gain within a week?
   0-4 5-9 10-14 15-19 20+
4. In a typical week, how much does your weight fluctuate?
   0-1 1.1-2 2.1-3 3.1-5 5+
5. Would a weight fluctuation of 5 pounds affect the way you live your life?
   Not at all Slightly Moderately Very Much
6. Do you eat sensibly in front of others and splurge alone?
   Never Rarely Often Always
7. Do you give too much time and thought to food?
   Never Rarely Often Always
8. Do you have feelings of guilt after overeating?
   Never Rarely Often Always
9. How conscious are you of what you are eating?
   Not at all Slightly Moderately Extremely
10. How many pounds over your desired weight were you at your maximum weight?
    0-1 1-5 6-10 11-20 21+

Appendix F: Demographic Questionnaire

Demographic Questionnaire

This is a demographic questionnaire that would be used for statistical purposes. Information that is given by you will be held confidential.

Age _____ Weight _____ Height _____

Gender Male___ Female___

Marital Status:

Single_____ Married_____ Divorced_____

Separated_____ Living with Partner_____ Other_____

Ethnicity:

African American/Black_____ Asian, Asian American_____
Caucasian/White_____ Hispanic/Latino_____
Native American_____ Other_____

Appendix G

Thank you for participating in my doctoral study to examine factors that relate to exercise and diet in men. Should you have any thoughts or feelings about these questions or your responses that trouble you, here are some free or low cost options for further assistance:

Organization	Phone Number
Institute for Contemporary Psychotherapy	1-212- 333-4444
Lifenet	1-800-LIFENET /1-800-543-3638
Brooklyn Community Counseling Center	1-718-338-4622
Renfrew Center of New York	1-212-685-6856
National Association for Anorexia Nervosa and associated disorders	1-847-831-3438
New Hope Guild Center	1-718-252-4200
Center for Educational and Psychological Services	1-212- 678-3262