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Media Body Images and Males' Body Dissatisfaction, Muscularity, Disordered Eating, and Depression

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College of Social and Behavioral Sciences

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Diana M. Carrillo

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Walden University
2018

Abstract

Media Body Images and Males' Body Dissatisfaction, Muscularity, Disordered Eating, and Depression

by

Diana M. Carrillo

MS, Walden University, 2010

MA, Argosy University, 2008

BA, University of California, Irvine, 1998

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

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Abstract

Body objectification theories propose that humans have an innate desire to compare themselves with others. When self-objectification is influenced by media exposure to idealized body images, results may be unrealistic self-perceptions and increased risk of depression, eating pathology, and overexercising. Although considerable work has been done to study these processes among women, much less is known about effects of media exposure on adult men. In response to this gap, this quantitative research study examined effects of exposure to an idealized man's body image on men observers' body dissatisfaction and related behaviors. A convenience sample of 119 freshman and sophomore community college men ranging in ages 18 to 29 was assigned to 1 of 2 conditions where they were exposed to images of male models with idealized bodies or to a neutral landscape image (independent variable). They completed questions to assess their body dissatisfaction, drive for muscularity, disordered eating, and depression. BMI and workout frequency also were assessed as covariates. It was predicted that body dissatisfaction, drive for muscularity, disordered eating, and depression scores would be higher for the group exposed to the idealized body images, as compared with neutral images. The research hypotheses were tested using ANCOVA analyses. No statistically significant between-group differences were found for any of the dependent variables. Design limitations and suggestions for further research are discussed. This study has social significance as it helps to keep the focus of researchers and mental health providers on media exposure as a risk factor among males for negative body image and related behaviors.

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Dedication

This paper is dedicated to myself and my three children Daisy, Joseph, and Jacob.

Acknowledgments

I would like to thank Walden University and all my professors along the way in my academic journey as well as my chair, Dr. Hannah Lerman and my committee member Dr. Donna Heretick. Thank you, Dr. Brian Ragsdale, for being a friend and mentor during this crazy time. I am grateful for having known Dr. Rodney Ford as a practicum and internship guide during the transition from coursework to training. Thank you to all the professors I had the pleasure of meeting at the residencies as well as my peers and mentors I had the opportunity to meet from around the world.

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Chapter 1: Introduction to the Study

Many studies have revealed high prevalence rates of overexercising, eating disordered behavior, and body dissatisfaction among women (Fredrickson & Roberts, 1997; Lindner, Tantleff-Dunn, & Jentsch, 2012; Tiggeman & Kuring, 2004). In contrast, the research on exercise, eating disordered behavior, and body dissatisfaction among men has been limited, mainly due to gender difference stereotypes; men have been generally thought of as strong and powerful while women as weak and vulnerable (Fredrickson & Roberts, 1997). Research by Fredrickson and Roberts (1997) suggested that gender stereotypes were also responsible for body type and physical appearance expectations among men and women. The research has indicated that 88% of women desired to lose weight compared to 37% of men (Kashubeck-West, Mintz, & Weigold, 2005).

Over the past 30 years there has been a considerable amount of attention and understanding regarding media image exposure associated with body image discrepancies (Moradi & Huang, 2008). Idealized media images have significantly contributed to body image disturbances, overexercising, and eating pathology for both men and women due to preconceived ideas of what is considered attractive for each sex (Moradi, 2010; Moradi & Huang, 2008; Nikkelen, Anschutz, Ha, & Engels, 2012; Tyler, Lopez, & Flores, 2009).

The societal message that having a muscular body for men and a thin body for women has been subliminally transmitted through a societal gender lens (Baird & Grieve, 2006; Johnson, McCreary, & Mills, 2007; Lindner et al., 2012; Moradi, 2010; Michaels, Parent, & Moradi, 2013; Mulgrew, Johnson, Lane, & Katsikitis, 2014). Subliminal messages, such as bigger is better, have been a precursor to consequences for men (Chia

& Wen, 2010; Farquhar & Wasylkiw, 2007). The expectation for men to be dominant and powerful has placed them in a patriarchal power structure that assumed that men did not have issues with body dissatisfaction like women do because of their perceived gender status in society (Moradi, 2010). Due to these expectations, men have been less likely to ask for help than women perpetuating the cycle and the societal stigma of men being powerful (Parent & Moradi, 2011).

The increased exposure to male models found in men's fashion and fitness magazines has led men to compare themselves to others and experience body dissatisfaction, anxiety, depression, and weight concerns that develop into body dissatisfaction, excessive exercise tendencies, and eating disturbances (Chia & Wen, 2010; Hobza & Rochlen, 2009; Johnson et al., 2007; Martin, Kliber, Kulinna, & Fahlman, 2006; Morry & Staska, 2001; Olivardia, Pope, Jr., Borowiecki III, & Cohane, 2004; Watkins, Christie, & Chally, 2008).

Women have been shown to have a much higher prevalence of eating disordered behaviors than men due to gender expectations (Fredrickson & Roberts, 1997; Parent & Moradi, 2011). Women have typically engaged in restrictive eating and/or purging behaviors while men have been known to binge eat and participate in excessive exercise (Kashubeck-West et al., 2005; Lavender & Anderson, 2010). Men have also been shown to restrict their caloric intake, skip meals, fast to control their weight, and count calories to control weight (Kashubeck-West et al., 2005).

While both men and women have been exposed to idealized media images, more research was needed to understand how men view themselves and their body image.

More research was also needed on understanding the consequences associated with the body dissatisfaction of men that seems to culminate in eating restrictions and exercising behaviors. There was also a need to understand how societal gender expectations influence how men view themselves. The results of this study contributed to closing the gap in literature for men in terms of how idealized media images affect men's level of body dissatisfaction, eating, exercise behaviors, and, subsequently, whether depression was also a consequence of viewing these images.

This introductory chapter began with the background of the research. I discuss below the purpose of the study, the research questions and hypotheses, the theoretical foundation, the definition of terms, assumptions, limitations, and the research on the consequences of viewing media images. The first chapter ends with a summary of the research topic.

Background

Research has indicated that repeated exposure to idealized media images of very muscular males in television programs, magazines, the internet, and advertisements is associated with increased body dissatisfaction (Baird & Grieve, 2006). For men, exposure to idealized media images of fit and muscular male models seems to have contributed to an increased amount of pressure on them to emulate these images (Schuster, Negy, & Tantleff-Dunn, 2013). Although Michaels et al. (2013) found that men preferred images of fit and muscular men in the media, negative consequences such as excessive exercise and erratic eating in men seem to have developed because of not having met media standards (Hargreaves & Tiggemann, 2009).

In the 1960s, research indicated that men desired larger body frames, specifically larger chests, wrists, shoulders, forearms, and biceps (Hatoum & Belle, 2004). Later research studies such as that done by Nikkelen et al. (2012) have reported that westernized men still focused on upper body strength with attention to the abdominal region and upper body. Men who desired muscularity have been shown to be highly attuned to upper body strength and size differences (Nikkelen et al., 2012). A reported 28% to 68% of normal weight males reported feeling that they were underweight and desired increased muscle mass (Johnson et al., 2007).

Mass media has played a significant role in American culture and certain idealized media images have reinforced gender differences and stereotypes (Kashubeck-West et al., 2005). The cultural ideal for women has been thin and beautiful while men have been typified as large and muscular, yet women have often been more sexualized or objectified then men (Roberts & Gettman, 2004). Past research has shown that women who viewed objectified media images of other women were negatively impacted and consequences such as eating pathology and decreased self-esteem emerged (Johnson et al., 2007). Repeated exposure to societal pressures through media images endorsed that "thin is good and beautiful" and that "what is not thin is bad and ugly" (Pelletier & Dion, 2007, p. 306).

When men continuously viewed these media images, many experienced shifts in thoughts and moods that altered their eating and exercise habits dramatically for them to appear like the media images (Serdar et al., 2011). Gender stereotypes and psychological and social stigma seem to be partly the cause of this. Although historically and today

muscularity, power, and strength for men have been emphasized, the reality is that both men and women have been affected psychologically by idealized media images (Moradi, 2010).

I conducted the current study on men to understand the implications and consequences of viewing idealized media images of male models in relation to gender expectations. In this study I examined the relationship between media image exposure and body dissatisfaction, drive for muscularity, disordered eating, and depression in adult males. Although there was a great deal of literature on media and body image issues with women (Tyler et al., 2009), there has been a gap in literature regarding men with these same issues (Morry & Staska, 2001; Tylka & Subich, 2002). This study has added an important link to the current literature in a critical area of study regarding men and the psychological consequences of viewing idealized media images.

Problem Statement

Research has shown the effects that exposure to media-idealized female images have on personal body image satisfaction, eating and exercise behaviors, and negative psychological consequences among women; however, less research has been conducted among men due to the social stigmas attached of men expected to be dominant and patriarchal (Pritchard & Cramblitt, 2014). Research has shown that both men and women are susceptible to sociocultural influences based on schemas of what an ideal body type would look like and beliefs referring to the self and self-worth based on these schemas (Pritchard & Cramblitt, 2014). My research study examined the relationship between media image exposure and body dissatisfaction, drive for muscularity, eating pathology,

and depression for men. The independent variable was type of image to which men participants were exposed (neutral landscape or idealized media body images) and the dependent variables represented various psycho-emotional and behavioral consequences of viewing idealized body images (body dissatisfaction, drive for muscularity, disordered eating, and depression).

The theoretical framework of this study was aligned with theories of body objectification (Parent & Moradi, 2011; Parent & Moradi, 2013). Body objectification theories generally proposed that through processes of social comparison, individuals internalize ideals and standards against which they compare their own body self-image (Ainley & Tsakiris, 2013; Gay & Castano, 2010). The more positive the self-other/ideal comparison, the more positive the individual's body satisfaction and the lower the drive towards behaviors to change the body's self-acceptability. However, the more negative the self-other/ideal comparison, the more negative the individual's body satisfaction and the higher the drive towards behaviors to change the body in ways to close the gap between self and the other/ideal (Lindner et al., 2012; Michaels et la., 2013; Parent & Moradi, 2011). Based on these theories, I developed my overriding research question: Does exposure to idealized body images influence men's own self-reported body dissatisfaction, drive to muscularity, eating behaviors, and depression?

Purpose of the Study

The purpose of this quantitative study was to explore the relationship between the independent variable (neutral and idealized media images for men) and the dependent variables (body dissatisfaction, drive for muscularity, disordered eating, and depression).

I examined these variables to understand the participants' responses regarding body dissatisfaction, drive for muscularity, disordered eating, and depression. I made comparisons of the dependent variables between those who viewed idealized media images and those who did not.

Research Questions and Hypotheses

Following objectification theories, I posed the following research questions and predicted that exposure to idealized male body images, as compared to exposure to a neutral image (landscape), would result in higher self-reported body dissatisfaction, higher drive for muscularity, more disordered eating behaviors, and higher scores on depression (Lindner et al., 2012; Michaels et al., 2013; Parent & Moradi, 2011).

RQ1: What is the relationship between viewing idealized media images and neutral images (independent variable) and body dissatisfaction (dependent variable) as measured by the Body Esteem Scale (BES) in undergraduate men students independent of BMI and fitness level?

$H_0$1: There is no difference in body dissatisfaction between the group that views the idealized media images and the group that views the neutral images on body dissatisfaction as measured by the Body Esteem Scale (BES) while controlling for level of fitness and BMI

H_a1: There is a significant difference in body dissatisfaction between the group that views the idealized media images and the group that views the neutral images on body dissatisfaction as measured by the Body Esteem Scale (BES) while controlling for level of fitness and BMI.

RQ2: What is the relationship between viewing idealized media images and neutral images (independent variables) and drive for muscularity (dependent variable) as measured by the Drive for Muscularity Scale (DMS) in undergraduate men students independent of BMI and fitness level?

$H_0$2: There is no difference in drive for muscularity between the group that views the idealized media images and the group that views the neutral images on drive for muscularity as measured by the Drive for Muscularity Scale (DMS) while controlling for level of fitness and BMI.

H_a2: There is a significant difference in drive for muscularity between the group that views the idealized media images and the group that views the neutral images on drive for muscularity as measured by the Drive for Muscularity Scale (DMS) while controlling for level of fitness and BMI.

RQ3: What is the relationship between viewing idealized media images and neutral images (independent variable) and disordered eating (dependent variable) as measured by the Eating Attitudes Test (EAT-26) in undergraduate men students independent of BMI and fitness level?

$H_0$3: There is no difference in disordered eating between the group that views the idealized media images and the group that views the neutral images on eating behavior as measured by the Eating Attitudes Test (EAT-26) while controlling for level of fitness and BMI.

H_a3: There is a significant difference in disordered eating between the group that views the idealized media images and the group that views the neutral

images on eating behavior as measured by the Eating Attitudes Test (EAT-26) while controlling for level of fitness and BMI.

RQ4: What is the relationship between viewing idealized media images and neutral images (independent variable) and depression (dependent variable) as measured by the Self-Report Depression Scale (SRDS) independent of BMI. and fitness level?

$H_0$4: There is no difference in depression between the group that views the idealized media images and the group that views the neutral images on depression as measured by the Self-Report Depression Scale (SRDS) while controlling for level of fitness and BMI.

$H_0$4: There is a significant difference in depression between the group that views the idealized media images and the group that views the neutral images on depression as measured by the Self-Report Depression Scale (SRDS) while controlling for level of fitness and BMI.

Theoretical Framework

Objectification theory states that individuals will have an internal mechanism that drives them to compare themselves with others; this can lead to perceived negative personal body image and body dissatisfaction due to overidentification with such images as were presented (Tyler et al., 2009). Viewing the self through the lens of media image identification seemingly leads to viewing the self as an object, hence self-objectification theory (Lindner et al., 2012; Michaels et al., 2013; Parent & Moradi, 2011). Mercurio and Landry (2008) discovered that the objectified body begins to be viewed as a separate

entity and not as a whole and that men experienced a decrease in sense of self due to dominance and power as prevalent male patriarchal traits (Michaels et al., 2013).

Objectification theory opened the door to understanding self-objectification. Fredrickson and Roberts (1997) viewed objectification theory to understand gender oppression and trivialization of women's sexuality and accomplishments (Fredrickson & Roberts, 1997). Women who have been socially sexualized and viewed as objects developed the internalized observers' perspectives (Greenleaf & McGreer, 2006).

According to self-objectification theory, a connection between exposure to idealized media images of muscular men and the increased desire for muscularity seemingly develops (Frederick, Forbes, Grigorian, & Jarcho, 2007; Michaels et al., 2013). Self-objectification theory has also recognized that body dissatisfaction increases after exposure to media images for most men (Frederick et al., 2007).

This theoretical framework explains how media exposure influenced self-objectification. The variables used in this research study were body dissatisfaction, drive for muscularity, eating pathology, and depression. Because more research had been conducted on women and due to the pressure they have felt to self-objectify and internalize the observer's perspective, this research study focused solely on men (Michaels et al., 2013).

Objectification and self-objectification theories suggest that idealized media images of fit and muscular men can affect personal body dissatisfaction (Mercurio & Landry, 2008). Self-objectification further explains how individuals become observers of their own bodies instead of having awareness of others' observations (Lindner et al.,

2012). Both theories examine how exposure to media images influence body image, body dissatisfaction, drive for muscularity, and psychological well-being. This is further discussed in Chapter 2.

Nature of the Study

In this quantitative study I utilized an experimental design based on two levels of media images (independent variables) to assess the effects (dependent variables) of viewing media images on body dissatisfaction, drive for muscularity, eating behaviors, and depression as measured by the BES, DMS, EAT-26, and the SRDS, respectively.

A convenience sample of 119 male undergraduate students was recruited for this study. After the participants read the introduction letter and signed the informed consent, they were asked to complete the demographic questionnaire to gather descriptive information, such as race, age, level of exercise, and body mass index (BMI). I divided the participants into two groups: idealized images (n = 57) and neutral images (n = 62) independently of workout frequency and BMI. I selected the participants from a convenience sample and asked them to view either the images of male models or the neutral, landscape images. Each participant was handed the images to view and were given 10 seconds to view each of the 7 images from each group before completing the questionnaires. The participants from each group (idealized images and neutral images) were asked to complete the BES, DMS scale, the EAT-26, and the SRDS (Byrne, 1996; Garner, Garfinkel, & Bemis, 1982; McCreary, 2007; Zung, 1965) after having viewed the idealized and neutral media images.

I conducted a priori analysis in order to determine the approximate sample size of $n = 75$ (idealized media images) and $n = 75$ (neutral images) with an alpha = 0.05, power = .08 (80% chance of detecting an effect), effect size of 0.30 (medium effect), $df = 1$, number of groups = 2 (experimental, control), and covariates = 2 (fitness level, BMI). An effect size of $r = .10$ explains 1% of the total variance, an effect size of $r = .30$ accounts for 9% of the total variance, and an effect size of $r = .50$ accounts for 25% of the total variance. A study by Ferguson, Winegard, and Winegard (2011) examined the effects between media exposure and body dissatisfaction for women and yielded an overall effect size of $r = .15$. What was found was that a greater amount of media exposure, whether it was exposure to idealized or neutral images, resulted in lower effect sizes, possibly due to media saturation (Ferguson et al., 2011).

For my research study, the participants completed the BES, the DMS, the EAT-26, and the SRDS after each group viewed the media images they were assigned to. The questionnaires took approximately 15 minutes each to complete. Consent forms were handed out beforehand.

Definitions

Body dissatisfaction: The dissatisfaction that occurs from the discrepancy between actual and ideal physiques that is often linked to physical and psychological issues (Farquhar & Wasylkiw, 2007).

Body esteem: "[A]n important dimension of general self-esteem" that is comprised solely of feelings about one's body (Hobza, Walker, Yakushko, & Peugh, 2007, p. 173).

Disordered eating: Mindless eating that may result in overconsumption of nutrient-poor, calorie dense foods, mental health issues, weight gain over the long run, eating in response to inappropriate cues, and disinhibited eating behaviors (Taylor, Daiss, & Krietsch, 2015).

Drive for muscularity: The idealization of a muscular ideal driven by excessive exercising and dieting (Burlew & Shurts, 2013); the focus is on being muscular, toned, lean, and physically fit (Lorenzen, Grieve, & Thomas, 2004).

Media images: Information relayed through different media such as television programs, movies, magazines, and music videos (Tyler et al., 2009).

Objectification theory: The internal drive for comparing the self to other individuals, which can lead to negative feelings about a person's own body due to perceived discrepancy between the self and the image (Tyler et al., 2009).

Overexercising: Excessive exercising motivated by wanting to be thinner or more muscular (Chia & Wen, 2010).

Self-objectification theory: The internalization of idealized media images from constant media exposure. The objectified body is viewed as a separate entity rather than a whole and is then defined by how others view the objectified body (Lindner et al., 2012; Mercurio & Landry, 2008).

Assumptions

There were various assumptions regarding this study. The theoretical framework was objectification theory. This theory stipulates how understanding the self in relation to others, particularly the male media images, can possibly lead to body dissatisfaction,

drive for muscularity, and eating disturbances (Morry & Staska, 2001). It was assumed that the participants from each group would respond differently to the idealized media images that the neutral images and that the time allotted for viewing each image (10 seconds) was enough to influence self-objectification. It was also assumed that the participants would answer the surveys honestly and that the participants understood what the survey questions were asking.

Scope and Delimitations

The experimental design of this study was chosen instead of a survey design to understand the differences between the responses of the male participants who viewed the idealized images as opposed to those who viewed the neutral images. In addition, instead of just understanding trends, attitudes, or opinions of a population, the experimental design allows the reader of this report to understand a treatment effect using two groups of a population (experimental versus control).

This study focused on undergraduate men because although there was a large amount of literature about college men and body image, there was more research and literature on the effects of media images on women, particularly with disordered eating and body dissatisfaction. Understanding how media images impacted undergraduate college men was useful to understand psychological symptomology, such as depression. There was far less research on men than women with regards to gender expectations and roles about media influences and depression. This study did not have any women participants and only men who were able to fluently understand English were asked to

volunteer. The results of this study are not generalizable to the U.S. adult population as this study targeted undergraduate men from a local community college.

Limitations

For this study I used a convenience sample of undergraduate men students from a local community college. Participants were selected based on certain criteria such as gender, age, and level of education. Thus, this sample was not representative of all adult men; this fact limits the generalizability of the findings to the entire population. I selected the participants from a city in Southern California; they were not necessarily representative of the entire United States.

The population I used for this study may not be as interested in fitness-related topics as participants engaging in fitness at a gymnasium or athletes from sport teams, which may have influenced how they choose to answer the questions. Also, the participants might have been tired from being in class; this could have also influenced how they interpreted the questions and how they answered them.

The community college from which my participants were recruited has a population of about 50% White students which might have influenced the demographic diversity of the sample. Because I personally recruited the students based on gender and age, and not specifically race, the chance of having recruited more White students than other ethnicities was greater. This limitation posed a further threat to the generalizability of results.

The time required to view the media images and then complete the surveys after viewing may have influenced how the participants answered the questions. To limit bias

from the participants, the consent form stipulated how much time the participants would have to view the media images and how long it would take to answer all the questions. This gave the participants a degree of information regarding the time that would not pressure them to answer hastily. The demographic questionnaire gathered information about the participants such as age, level of education, ethnicity, current level of fitness, and current height and weight (to calculate BMI). I used this information as the covariates of the dependent variables being measured.

Lastly, the media images were not specifically used in other previous research studies. Since this experiment did not conduct a pretest to determine the potential reliability and validity of the media images, it was not determined if the characteristics differed strongly enough between each of them, which may have affected the significance of the outcome of this study.

Significance

The findings of the study contribute to positive social change by helping others understand the implications of exposure to idealized media images in men. Due to the shifts in gender role expectations, men have also felt the pressures to objectify their own bodies (Kashubeck-West et al., 2005). When men socially compared themselves to the unrealistic media images, they began to self-objectify, leading to internalized consequences such as disordered eating, overexercising, and compromised body image (Johnson et al., 2007; Tyler et al., 2009).

There is a lack of sufficient research literature involving the relationship of men to media imagery in Western culture. Lindner et al. (2012) suggested that societal gender

expectations were responsible for depicting men in these images as strong, powerful, and dominant appearing as if they were not in need of help. As a result, men may suffer silently and develop and internalize psychological issues for which they do not get the treatment they need (Lavender & Anderson, 2010; Lindner et al., 2012).

It was important to understand the consequences of idealized media image exposure for the purposes of this study. While these issues have been explored more deeply amongst women, negative psychological and sociological problems also occur among men, particularly models and athletes (Harvey & Robinson, 2003). This is especially true with men who overidentify with the idealized media images, wanting to achieve an ideal "cut" and lean body type (Hallsworth, Wade, & Tiggeman, 2005). Younger adult males have been shown to fall victim to overidentifying with the media; therefore understanding the degree of consequences would help facilitate the treatment needed to assist with this social problem (Hallsworth et al., 2005).

Summary

Objectification and self-objectification theories (Fredrickson & Roberts, 1997) provided the theoretical frameworks to better understand how identification with idealized media images negatively impacts men's body image. This study focused on men as limited research has been conducted on this population in comparison to women. The variables utilized were media images (independent variable), body dissatisfaction, drive for muscularity, eating pathology, and depression (dependent variables).

In the following chapters I examine and reflect upon the relationship between idealized media image exposure and body dissatisfaction, eating disturbances, exercise

behaviors, and depression. The literature review in Chapter 2 reports about previous research conducted regarding objectification theory and self-objectification theory. In this research study I also discuss previous literature about body dissatisfaction, the role of media images, and the consequences associated with these. I analyzed the literature to identify a gap and then address the problem in this research study. In Chapter 3 I focus on the research methodology. Chapter 4 presents the results and Chapter 5 reports the findings made in this study.

Chapter 2: Literature Review

There are reported gender differences with eating disorders and body image dissatisfaction between men and women (Kashubeck-West et al., 2005; McDonald & Thompson, 1992). Schuster et al. (2013) found that the body is viewed as an object that is explored and judged by others, which can lead to negative outcomes. The negative emotional states associated with objectification can lead to maladaptive eating behaviors used for coping such as binge eating, purging, and excessive exercise (Lavender & Anderson, 2010; Schuster et al., 2013).

Kashubeck-West et al. (2005) showed that 88% of women desired to lose weight compared to 37% of men. These statistics further support the fact that women were more likely to engage in dieting due to appearance than men are and that women may tend to use evaluations by others as being a central force in determining their self-concept (Farquhar & Wasylkiw, 2007). Men have been shown to compose about 10% of the eating disorder population (anorexia nervosa and bulimia nervosa) and an additional 3.3% of surveyed males engaged in binge-eating behaviors (Farquhar & Wasylkiw, 2007).

In general, problematic eating behaviors has been shown to have decreased as the prevalence for bulimia dropped from 7.2% to 5.1% in women and from 1.1% to .4% in men while binge eating decreased by 10% for both men and women over the past 30 years (Harvey & Robinson, 2003). This decrease in eating disordered behaviors over the past 30 years may be related to reduction of fat in diets, and increased regulated eating habits (Harvey & Robinson, 2003). Even so, there is still a gap in literature that exists

today with regards to body dissatisfaction and eating disorders for men (Morry & Staska, 2001; Tylka & Subich, 2002).

Although literature exists that suggested that ads in fitness magazines for diets, diet supplements, fitness programs, and hair growth remedies could be attributed to men buying into a societal ideal, much more research has been conducted on women in this area (Duggan & McCreary, 2004). Many of these research studies conducted on women have found that media exposure lent itself to an increase in body image disruptions, eating disorders, overexercising, and body shame for adolescents and adults (Anschutz, van Strien, & Engels, 2011; Morry & Staska, 2001).

Chapter 2 began with an overview of objectification theory and self-objectification theory. Supporting evidence and research regarding media-idealized images and their impact on body image and body dissatisfaction among men and women were provided. Other relevant information, as it pertains to objectification theory, self-objectification theory, media images, body dissatisfaction, and drive for muscularity were explored.

Literature Search Strategy

This literature review consisted of peer-reviewed journals published from 1985 to 2015 that were collected utilizing the following databases: PsychARTICLES, Academic Search Complete, PsychEXTRA, PsychINFO, Google Scholar, and psychology textbooks from Walden University. The articles selected focused on the impact that media has on men's self-perception of their bodies and the consequences that can ensue such as poor body image, disordered eating, and an increased drive to be muscular due to idealized

media images. Research studies that included men and women were reviewed with these specific terms: *objectification theory and women, objectification theory and men, self-objectification theory and women, self-objectification theory and men, idealized media images and body dissatisfaction, neutral media images, body image, body esteem, body dissatisfaction among men, body dissatisfaction among women, disordered eating and men, disordered eating and women, drive for muscularity and college students,* and *male college students.*

Theoretical Foundation

Objectification Theory

Objectification theory was originally discussed by Fredrickson and Roberts (2007) to describe the experiences that women encountered in a culture that idealizes and sexualizes the female body (Fredrickson & Roberts, 1997). Their main objective was to understand how the internalization of the observer's perspective could create body shame and body image disturbances. For women, this included gender oppression and trivialization of sexuality due to rigid societal gender expectations (Fredrickson & Roberts, 1997).

In Western society women were being valued for thinness and vulnerability while men were expected to be masculine and dominant (Moradi, 2010; Michaels et al., 2013). Women experienced how others viewed them to be meaningful and made these images part of their own being through the process of internalization (Lindner et al., 2012). The internalization of the viewed physical body parts rather than the entity of the whole person has had negative consequences for women and men (Gay & Castano, 2010). The

internalized perspectives of other people have been associated with body image dissatisfaction as well as the inability to connect in an intimate way (Ainley & Tsakiris, 2013; Gay & Castano, 2010; Tiggemann & Lynch, 2001).

Men seem to experience the internalization of perceived societal standards through idealized media images, but differently than women do. The connection between dominance and drive for muscularity is an important psychological factor for an understanding of men's body dissatisfaction; this contrasts with the connection between vulnerability and thinness for women (Michaels et al., 2013). The desire for muscularity has also been connected to the internalization of expected dominant cultural standards associated with patriarchal power structures (Moradi, 2010; Parent & Moradi, 2011). If men are expected to be strong and powerful, the assumption might be they just do not need help the way women do and consequently may have suffer in silence.

In general, men in Western countries report feeling a profound amount of pressure to be more muscular and lean to simulate a masculine identity due to gender role expectations or personal body image issues (Brown & Bardoukas, 2013). The increased exposure to idealized media images has been significantly associated with increased gender role expectations and identification as an object (Swami & Voracek, 2013). Men have sometimes compared themselves to others in the images and have based their self-worth on these comparisons as well as on their fulfillment of gender stereotypes inclucated through societal messages (Lindner et al., 2012; Michaels et al., 2013; Parent & Moradi, 2011).

Objectification Theory and Body Dissatisfaction

Objectification has been part of a complex issue that has led to serious issues related to body dissatisfaction. This has sometimes resulted in comparisons of a person's self to others with the increased desire to change the person's own body to match the perceived standards of others (Prichard & Tiggemann, 2012). This can create a desire to achieve a level of perfection and have the body the person associates with the ideal physique (Tiggemann, 2013).

Body dissatisfaction was also defined as the negative thoughts based on certain perfectionistic behaviors of individuals concerning their own bodies and self-worth (Farquhar & Wasylkiw, 2007). I explored the objectification theory framework in order to understand how the idealized media images of fit, lean, and muscular male models related to body dissatisfaction from a physical appearance perspective (Fredrickson & Roberts, 1997). The continued emphasis on muscularity, power, and strength for men seems to have led to the internalization of images of very muscular men as ideal, skewing body image perceptions and leading to body dissatisfaction (Michaels et al., 2013; Cramblitt & Pritchard, 2013).

An immoderate amount of exposure to media images has been known to increase body surveillance, defined as a form of self-consciousness characterized by habitual and constant monitoring of the body's outward appearance (Hallsworth et al., 2005; Parent & Moradi, 2011). This is said to create a false sense of self that is not congruent with the average male's body, and it can develop into increased focus and objectification toward the self (Hallsworth et al., 2005; Michaels; Parent & Moradi, 2013). Slevec and

Tiggemann (2010) noted that the discrepancy between an ideal body type and a man's own body type leads to an increase in body dissatisfaction.

Cramblitt & Pritchard (2013) noted that body dissatisfaction is common today with over 90% of U.S. college women and 70% of U.S. college men reporting body and weight concerns. Eighty-five percent of men college students preferred to be more muscular and reported that they saw themselves as too small or not muscular enough (Hallsworth et al., 2005). Overexercising, disordered eating patterns, and psychological issues were also reported (Johnson et al., 2007; Nikkelen et al., 2012).

Objectification Theory and Drive for Muscularity

There has been more research done about women than men with reference to body self-perception and consequent undesirable behaviors (Cramblitt & Pritchard, 2013). While women have suffered some of the same consequences as men related to eating disturbances and overexercising tendencies, research showed a preference for women to be thin and for men to be muscular. For example, the idealized woman's body represented by the media is typically 15% below the weight of a normal woman and the men were portrayed as muscular and lean. aAs a result, women today prefer to be thinner while men today prefer to be more muscular with a lean build (Harvey & Robinson, 2003; Hausenblas & Fallon, 2002).

It is theorized that over time, long-standing exposure to idealized images will distort self-perception and increase body dissatisfaction, which is increasingly found among both men and women (Nikkelen et al., 2012). Increased body dissatisfaction is most often found among women, while the push to exercise more is increasingly found

among men (Farquhar & Wasylkiw, 2007). The term drive for muscularity, described as the magnified desire to gain muscle mass, is considered more of a male issue, although some research on this issue for women does exist (Farquhar & Wasylkiw, 2007; Grieve & Helmick, 2008; Parent & Moradi, 2011). This increased desire to become more muscular is strongly connected to exposure to and identification with the representation of these images (Daniel, Martens, & Bridges, 2014).

Objectification Theory and Eating Disorders

Many behavioral issues have had a considerable impact on men's and women's psychological health. Disordered eating, found among both genders, is a high-risk factor for body dissatisfaction and body-image discrepancies (Lindner et al., 2012). Tiggeman and Kuring (2004) and Lindner et al. (2012) explored the relationship between the variables. Measures of self-objectification, depressed mood, disordered eating, body shame, and appearance anxiety were used for the first study using both men and women participants (Tiggeman and Kuring, 2004).

The second study (Lindner et al., 2012) proposed measures of self-objectification, objectification of others, social comparison, body shame, body dissatisfaction, and disordered eating. The results from both studies indicated that over-identifying with the idealized media images that included appearing thin, beautiful, and vulnerable produced shame and anxiety, particularly if the viewers attempted to emulate the characteristics of the idealized media images (Fredrickson & Roberts, 1997).

Tiggemann and Kuring (2004) examined the role of objectification theory with both male and female undergraduates. The females scored higher than the males on self-

objectification and self-surveillance which was linked to disordered eating and depressed mood. The results for the males in this study indicated they experienced a significant correlation between body shame, appearance anxiety and disordered eating and depressed mood (Tiggemann and Kuring, 2004).

The objectification theory explains how individuals experience a culture that sexually objectifies the physical body (Fredrickson & Roberts, 1997). Self-objectification further explains how individuals become observers of their own bodies instead of having awareness of others' observations (Lindner et al., 2012). Both theories explain how idealized media images influence body image, body dissatisfaction, and drive for muscularity.

Self-Objectification Theory

Self-objectification seems to be developed through conscious and habitual internalization of other people's observations (Tiggemann, & Lynch, 2001). This complex process of internalization seems to lead to chronic self-monitoring (Tiggemann, & Kuring, 2001; Tiggemann, & Lynch, 2004). When the objectified body is viewed without considering the entire person, the importance of physical appearance begins to develop (Mercurio & Laundry, 2008). The observer's gaze of the physical body begins to be internalized and subsequently feelings about what is viewed is taken in (Harper, & Tiggemann, 2008; Tiggemann, & Kuring, 2004).

The relationship between idealized media images, mood, and body image were examined in two separate studies that attempted to find the link between these variables. Harper and Tiggemann (2008) were interested in understanding the effects of idealized

media images of thin women on self-objectification, appearance anxiety, and body dissatisfaction while Fredrickson, Roberts, Noll, Quinn, and Twenge (1998) wanted to examine the connection between body dissatisfaction, over-exercising, and eating disorders.

The first study by Harper and Tiggemann (2008) explored the relationship between idealized media images, mood, and body image within a self-objectification framework. All the female participants were asked to view magazine advertisements of thin women and men. One subset of media images showed idealized media images of men catering to a woman. The idea was to understand whether there were any differences when a male model was introduced to one group of participants (Harper & Tiggemann, 2008). Fredrickson et al. (1998) sought to understand if there was any significance between self-objectification and body shame, restrained eating, and math performance for their male and female participants. Another posited hypothesis was that women would be experiencing emotional and behavioral consequences of self-objectification as opposed to men.

The results from the first study indicated that the participants that viewed thin-idealized media images of women were at greater risk for developing increased self-objectification, weight-related appearance anxiety, negative mood, and body dissatisfaction as opposed to those that viewed the advertisements from the control group (Harper & Tiggemann, 2008). Fredrickson et al. (1998) reported the idea that self-objectification is a risk factor for disordered eating and that restrained eating is predicted by sex differences, trait self-objectification, and body shame. Further exploration of the

results demonstrated that self-objectification increased without the participants having attention on their own bodies.

Both studies sought to understand how self-objectification impacted the participants and what they discovered was self-objectification had significant consequences such as body shame and restrained eating, more so for women as opposed to men (Fredrickson et al., 1998; Harper & Tiggemann, 2008). The authors of both studies concluded that women were at considerably greater risk than men for body image disturbances due to exposure and internalization of unrealistically thin and fit models.

Self-Objectification Theory and Body Dissatisfaction

Body dissatisfaction can be a result of continuous comparisons of one's true self to images that are not standardized images of everyday people. This is one of the facets of the self-objectification theory; that internalized cultural and societal standards, through the lens of unrealistic pictures, produced behavioral and psychological issues (Michaels et al., 2013; Schwartz, Grammas, Sutherland, Siffert, & Bush-King, 2010). Michaels et al. (2013) noted that the individuals that took this to heart were more prone to restricted eating behaviors and/or binging food. These same individuals were more susceptible to body surveillance which perpetuated the idea that women felt more pressure to be thin while men felt more pressure to be muscular (Schwartz, Grammas, Sutherland, Siffert, & Bush-King, 2010).

Two very similar studies explored the relationship between self-objectification and body dissatisfaction along with other similar variables. Michaels et al. (2013) contributed to the research on body dissatisfaction by studying the relationship between

idealized muscular images of 140 heterosexual and sexual minority males and the consequences of exposure for these males. Frederick et al. (2007) conducted a similar study examining the gender and ethnic differences as well as BMI body dissatisfaction under the objectification and self-objectification umbrella using 2,206 undergraduate White, Asian, and Hispanic participants of both genders.

The first study looked at whether media images reported more negative consequences than the control group as well as more consequences for sexual minority males (Michaels et al., 2013). This study used the following five variables: body dissatisfaction, body shame, body surveillance, appearance anxiety, and drive for muscularity. The other study suggested that men would report greater body dissatisfaction and less appearance surveillance than women (Frederick et al., 2007). The results from the first study indicated that the participants in the experimental group who viewed the idealized images had not reported more negative body image concerns compared with the control group (Michaels et al., 2013). The researchers from the second study found that women reported more body dissatisfaction than men (Frederick et al., 2007). Underweight men were less satisfied than underweight women and there were insignificant differences in the results among White, Asian, and Hispanic participants.

Schwartz, Grammas, Sutherland, Siffert, and Bush-King (2010) and Nikkelen et al. (2012) both explored the relationship between body dissatisfaction and self-objectification however their studies examined distinct variables, both important for understanding the implications that lead to body dissatisfaction. Schwartz, Grammas, Sutherland, Siffert, and Bush-King (2010) wanted to understand how gender role conflict

and ethnicity lead to differentiation of self (DOS) for men. Nikkelen et al. (2012) focused on how idealized media images affected body dissatisfaction and what physical attributes men focused on most. Their experiment had asked the males to focus on nine distinct parts of the male physique using an eye-tracking device while the second half of the study entailed the participants to watch a non-emotional documentary with neutral commercials or male models. Both studies focused on gender attributes, gender roles, and body dissatisfaction.

Both studies revealed significant findings regarding body image and self. Schwartz, Grammas, Sutherland, Siffert, and Bush-King (2010) discovered that gender role conflict was not a significant predictor of muscularity, but that ethnicity and differentiation of self were predictors of self-objectification. Nikkelen et al. (2012) discovered that when men viewed the ideal images that focused on the abdominal region they were more satisfied with their own bodies then when they viewed the neutral images. It seems that viewing idealized media images did not affect men negatively in fact it improved their overall body satisfaction.

Self-Objectification Theory and Drive for Muscularity

Males who aspired to look like or attain a similar physique as male models oftentimes set themselves up for disappointment (Grieve & Helmick, 2008). What might appear to be an innocuous gesture of fitting into a perceived societal standard dangerously set up the individual for decreased satisfaction with themselves, which included and is not limited to increased and exaggerated behaviors of self-discipline (Grieve & Helmick, 2008). Some males drove themselves to increase their exercise

patterns to achieve a look they desired however this ideal went too far. The self-objectification theory explained the drive for muscularity in men (Grieve & Helmick, 2008).

Grieve and Helmick (2008) sought to understand the influence of self-objectification on men's drive for muscularity, body dissatisfaction, and symptoms of muscle dysmorphia. Muscle dysmorphia mostly occurred with men and is a disorder in which the individuals believed they are much smaller than they appeared (Grieve & Helmick, 2008). They hypothesized that men who scored high on self-objectification would have a higher drive for muscularity and men scoring high on self-objectification would subsequently have increased levels of muscle dysmorphia, higher body dissatisfaction, and lower self-esteem.

The results for this study indicated that men high in self-objectification had a greater drive for muscularity and showed higher symptoms of muscle dysmorphia. The results also supported the fact that men high in self-objectification would show higher levels of muscle dysmorphia than men low in self-objectification. The overall findings indicated that self-objectification increased the risk to men's physical and psychological health.

Self-Objectification Theory and Eating Disorders

When there are difficulties identifying the feelings of hunger, the body has a challenging time identifying the emotions that help stabilize hunger cues and eating. Eating disordered behavior is the result of having over identified with the idealized media images and having under identified the internal cues such as feelings of hunger and

satiety (Myers, & Crowther, 2008). Myers and Crowther (2008) examined the relationship between self-objectification, interoceptive awareness, and disordered eating. Interoceptive awareness was defined as an awareness of one's internal states that encompass an awareness of both physical and emotional states as they relate to feelings of hunger and satiety. They hypothesized that interoceptive awareness was measured by the *Interoceptive Awareness* subscale (EDI-IA) that mediated the relationship between self-objectification and disordered eating. It was also hypothesized that *Awareness of Emotions* as measured by the TAS had not mediated this relationship.

The results from this study suggested that interoceptive awareness mediated the relationship between self-objectification and disordered eating. There were associations made between self-objectification and interoceptive awareness although there was no significance found between hunger and satiety cues. There were implications that individuals with eating disorders had difficulty identifying their own emotions.

Literature Review Related to Key Variables

Media Images

Over the course of time, the male physique found in media images have grown increasingly bigger and more robust. Recent studies have emphasized the growing trend of the mesomorphic, or the husky muscular body build (Lorenzen et al., 2004). For example, the action figure G.I. Joe, when extrapolated to human size, is as unattainable as the Barbie doll proportions are for girls when we look at the bodies of actual men and actual women (Olivardia et al., 2004).

Men reported either wanting to be thinner or more muscular in equal numbers (Chia & Wen, 2010). Men who desired thinness seemingly developed negative self-images and engaged in negative body image behaviors such as dieting, taking diet pills, and excessive exercising (Chia & Wen, 2010). Males in college in Western society were being more prone to body image issues than older men due to the masculine and muscular norms found in fitness and fashion magazines and television programs that are of interest to men in this age group (Martin et al., 2006; Olivardia et al., 2004).

The study conducted by Olivardia et al. (2004) sought to understand the relationship between body dissatisfaction and muscularity. Both sets of researchers hypothesized there would be a connection between these variables; they both found that overweight and obese individuals had higher levels of negative body image and reported more weight and shape concerns than normal-weight participants. The overweight and obese individuals also reported higher levels of body dissatisfaction than the normal-weight participants. Furthermore, overweight or obese men were more likely to use body changing strategies such as eating less or exercising more to fit the masculine ideal (Olivardia et al., 2004).

Martin et al. (2006) examined the relationship between Social Physique Anxiety (SPA) and muscularity and appearance cognitions in college men. The study explored how muscularity perceptions and appearance related cognitions predict SPA. According to Martin et al. (2006), the results indicated that the men's overall evaluation of appearance was important because the assessment of appearance that captured feelings about weight, height, and facial features was more strongly related to SPA than is an

assessment of thoughts restricted to muscularity. Those participants who viewed muscularity as very positive expressed greater SPA than those who viewed muscularity as less positive which gave meaning to the reality of achieving a muscular build and its psychological implications.

Media Images and Body Dissatisfaction

Over the past 30 years men have reported an increased amount of dissatisfaction with their physical appearance (Farquhar & Wasylkiw, 2007; Ogden & Mundray, 1996). Men who desired more muscle and lower body fat focused on the upper body and the abdomens, attempting to attain this ideal through extreme dieting and exercising (Baird & Grieve, 2006; Ogden & Mundray, 1996). The research results indicated that the inability to meet the cultural and societal expectations of masculinity and muscularity contributed to these ongoing issues (Johnson et al., 2007; Farquhar & Wasylkiw, 2007).

Research studies by both Karazsia, Crowther, and Galioto (2013) and Hargreaves and Tiggemann (2009) both focused on participants who played sports, reported higher body dissatisfaction, engaged in social comparisons, internalization, and received pressure from family and peers to lift weights. These same participants would also engage in over-exercising and have eating problems. Karazsia et al. (2013) discovered that their participants were more likely to use both legal and illegal substances, otherwise known as performance-enhancing substances (PES). The results from this study suggested that males who reported more body dissatisfaction, greater internalization of an athletic ideal, and who engaged in more social comparisons had a greater risk of using controlled and illicit substances. Furthermore, those who engaged in higher body

comparison were also more likely to report using a testosterone supplement. Half of the participants from the second study viewed the muscular-ideal images while the other half viewed the neutral images (Hargreaves and Tiggemann, 2009). The results from this study indicated that men who viewed the idealized media images felt less attractive and satisfied with their own image.

Farquhar and Wasylkiw (2007) conducted a study that compared media images and body dissatisfaction for men and similarly, Chia and Wen (2010) were interested in evaluating the effects of media exposure on their self and their perception of media effects on others. Both studies were interested in understanding how media images directly impact body dissatisfaction and self. Farquhar and Wasylkiw (2007) showed the participants slides of advertisements from magazines such as *Men's Fitness* and *Muscle & Fitness* that are considered muscular and attractive. Chia and Wen's (2010) study used a nine male-figure silhouette for the participants to assess body image from thinnest to heaviest (10 to 90).

A greater discrepancy between actual and ideal body size perception was found for those who viewed the human (idealized images) versus the nonhuman advertisements (control group); greater body dissatisfaction was found for those who viewed the idealized images (Farquhar &Wasylkiw, 2007). The results from this study indicated an increase in depression and the likelihood of engaging in eating disordered behaviors as consequences although the second study found no significance in the approach for measuring body image perceptions (Chia & Wen, 2010).

Hausenblas and Fallon (2002) examined high and low body dissatisfaction for men and women through the exposure to idealized slides (images) and slides of themselves while Schuster et al. (2013) were interested in the effects of appearance-related comments (feedback) on body dissatisfaction, eating pathology, and body change behaviors (exercise and muscle-building) in men. Both studies focused on the effects of appearance-related exposure and its consequences. They hypothesized that viewing the idealized images would produce emotional disturbance for the high body dissatisfied group compared to the low body dissatisfied group and that women would report greater emotional disturbance than the men after viewing both type of images (Hausenblas & Fallon, 2002). The results from this study indicated that the high body dissatisfied women reported higher emotional disturbance than the men when viewing both types of images. Furthermore, the high body dissatisfied group reported less pleasure when viewing the self-images as opposed to the idealized images. The high body dissatisfied men reported more arousal or pleasure when viewing both types of images. This suggested that women were more prone to emotional disturbances after viewing these images then men were.

Schuster et al. (2013) hypothesized that men who received more positive and negative commentary would have higher body dissatisfaction, eating pathology, and appearance change behaviors. What they discovered was that men who received positive commentary were less likely to experience body dissatisfaction and appearance-change behaviors. Men who reported receiving negative commentary were more likely to experience eating pathology and body dissatisfaction.

About 70% to 95% of college men experienced some form of body dissatisfaction according to the results of recent research (Lavender & Anderson, 2010; Martin et al., 2006). Watkins et al. (2008) examined the relationship between body image and BMI in college men. They wanted to understand the cognitive and affective dimensions in the following 4 BMI categories: underweight, normal weight, overweight, and obese. The researchers concluded that BMI was significantly correlated with negative body image. Also, overweight and obese men reported significantly greater levels of negative body image than normal or underweight men due to pressure to attain thinness.

Media Images and the Drive for Muscularity

There is a culture of muscularity that is oftentimes overlooked since most of the people that are susceptible are males (Burlew & Shurts, 2013; Lorenzen et al., 2004). Although men reported increased pressure to conform to ideal body types little research about this has been studied.

Hobza and Rochlen (2009) performed a study analyzing gender role conflict, drive for muscularity, and the impact that idealized media images have for men. This study hypothesized that men exposed to ideal images of other men will report significantly higher body dissatisfaction and higher drive for muscularity. This study also hypothesized that gender role conflict would moderate men's body dissatisfaction and drive for muscularity scores. This meant that higher gender role conflict showed higher body dissatisfaction and higher drive for muscularity.

All the participants were asked to complete the following measures: BES, SSES, GRCS, DMS, and a demographics inventory. What Hobza and Rochlen (2009)

discovered was that men in the physical-image condition who viewed the muscular images reported higher body dissatisfaction. Furthermore, viewing these images increased scores of body dissatisfaction, however, the increased drive for muscularity and gender role conflict did not produce significant results.

Media Images and Disordered Eating

Eating disorders have typically been seen to be more of a women's issue resulting in more studies being conducted with women, particularly around the issues of eating pathology (Chia and Wen, 2010; Daniel et al., 2014; Grieve & Helmick, 2008; Parent, and Moradi, 2011; Schwartz, Grammas, Sutherland, Siffert, & Bush-King, 2010). Although more research has been conducted on women regarding eating disorders because of body dissatisfaction, men also seem to have experienced defensive eating behaviors to cope with body image disturbances (Daniel et al., 2014).

Several studies have shown the relationship between disordered eating, exercise behaviors, and body dissatisfaction. McDonald and Thompson (1992) and Kashubeck-West et al. (2005) both analyzed how these variables affected one another with both gender of participants. McDonald and Thompson (1992) researched gender differences in exercising and the relationship between exercise and eating disturbances, body image dissatisfaction, and self-esteem and found that women exercised more due to weight concerns and exercised more to tone their bodies. For men, exercising was negatively correlated with bulimia and positively associated with self-esteem. Exercising for these reasons was positively correlated with eating disturbances and body image issues for both genders.

Kashubeck-West et al. (2005) hypothesized that there would be no difference between men and women in terms of body dissatisfaction, although women would be more dissatisfied than men with certain body parts. Furthermore, both genders reported concerns with weight and appearance, women reported more dieting and less exercising then men, and both genders had similar self-esteem. They concluded that both men and women had similar levels of body dissatisfaction and weight and appearance concerns. Likewise, the desire to lose weight superseded gender differences.

A similar study conducted by Ousley, Cordero, and White (2008) was interested in finding the relationship between eating disorders and body image of undergraduate men. This study hypothesized that college men would have different patterns of body image than college women. Also, men with eating disorders would be more preoccupied with muscle tone as opposed to women who would be more preoccupied with weight. The researchers hypothesized that these fixations would occur more in college men with eating disorders as opposed to those without an eating disorder.

The results revealed that a significantly lower percentage of men with an eating disorder reported feeling fat than did the women with an eating disorder. Men with an eating disorder reported being less fearful about gaining weight and becoming fat or heavy. Furthermore, there were no significant differences between the groups in terms of how often they felt fat or were fearful of becoming heavy. More of the eating-disordered men reported they frequently felt fat. Overall, the results were significant in that undergraduate men with an eating disorder are more preoccupied with body shape and tone rather than losing weight.

Summary and Conclusions

Western cultural standards of idealized muscular men portrayed in the media have developed into the muscularity ideal that has harmful consequences such as body dissatisfaction (Lindner et al., 2012; Moradi & Huang, 2008). The exposure to idealized media images has had a strong impact on body image, often strongly impacting body dissatisfaction, the need for muscularity, and eating behaviors for men (Michaels et al., 2013; Parent & Moradi, 2011). College males were often more susceptible due to stress, gender expectations, and social comparisons (Martin et al., 2006; Olivardia et al., 2004).

According to objectification theory, media images with muscular men convince mend they were small and underdeveloped regardless of their actual body type, frame, and weight (Martin et al., 2006). Although men attributed attractiveness with increased muscle definition and leanness, 40% to 50% of men experienced some levels of body dissatisfaction. About 28% to 68% of normal weight males felt they were underweight resulting in attempted weight gain or increased muscle mass (Johnson et al., 2007).

Chapter 3: Research Method

The purpose of this study was to examine the effects that idealized media image exposure had on body dissatisfaction, drive for muscularity, eating pathology, and depression for adult college men. In this chapter I describe the research design, sample population, data analysis, measures, and the ethical considerations. I also discuss the research questions and hypotheses along with the data collection and analysis procedures.

Research Design and Rationale

For this study, I examined the relationship between media image exposure and body dissatisfaction, drive for muscularity, disordered eating, and depression for adult college men. The purpose of this experiment was to generalize from a sample to a population. For this research study, the independent variable was media images (male models and landscape images). The dependent variables were the consequences of viewing these images: body dissatisfaction, drive for muscularity, eating disordered behavior, and depression. The covariates for this study were workout frequency and BMI.

Methodology

Population

The participants were selected from a local community college in Southern California. The school had a college-credit enrollment of about 25,000 day and evening students while 10,000 other students were enrolled in the adult education program such as the Job Training Partnership Act (JTPA).

The college offers associates degrees for transferring to 4-year universities and certificates in a variety of fields of study. The 2016 demographic statistics showed the

following gender ratio among the students: females (53%), males (45%), and unknown (2%). According to the *Campus Profile*, the age ranges were as follows: less than 20 years old (40%), 20 to 25 years old (26%), 26 to 30 years old (11%), 31 to 50 years old (17%), and 51 years and older (6%). Ethnicity and race were as follows: Black (3%), Native American/Alaskan (2%), Asian/Pacific Islander (8%), Filipino (4%), Hispanic (32%), White/Armenian (49%), unknown (2%).

Sampling and Sampling Procedures

The characteristics of the selected participants were that they were all adult college freshman and sophomore men. These research participants were conveniently selected based on education status (freshmen and sophomores), gender (men), and age (18–29). The research participants were limited to this age group because, according to Parent and Moradi (2011), the average age of onset for body dysmorphia and drive for muscularity was around 19 years of age, with one third of college men having reported excessive exercising. This research also indicated that young adult men between the ages of 18 and 29 years of age were more vulnerable to idealized media images and body image disturbances than older adult men.

Additional research supported that college men in Western society were more prone to body image disturbances than older men due to their exposure to masculine gender norms in the media such as television, radio, magazines, and even toys (Martin et al., 2006; Olivardia et al., 2004). Furthermore, the social pressures for men to conform to idealized media images predicted future body shape concerns among college-aged men

who were typically very preoccupied with reducing body fat and building muscle mass (Lavender & Anderson, 2010; Watkins et al., 2008).

The demographic information that I collected included age, gender, ethnicity, level of education, weight, height, and current level of fitness (see Appendix B). The BMI was calculated based on self-reported weight and height. The level of fitness was measured using self-reported workout frequency per week. The participation was voluntary, and all of the data were self-reported.

The inclusion criteria for this study were: students from the community college (freshmen and sophomores) and men in the age range of 18–29. The participants were able to read and understand English had completed the informed consent form, the demographic forms, and the research study questionnaires. The exclusion criteria for this study were students who did not attend this community college, all women, participants under the age of 18, participants over the age of 29, and individuals who could not read or understand English well enough to complete the required questionnaires.

A power analysis, using G*power3 software, was conducted to determine the appropriate sample size for the proposed research study. An a priori power analysis, assuming a medium effect size ($f = .30$), alpha = .05, determined that the minimum sample size required for this study to achieve a statistical power of .80 to be 90 participants (Field, 2005; Gravetter & Wallnau, 2007).

For effect size, Cohen defines the following (Field, 2005; G*Power 3.1 manual, 2014): small, $r = .10$; medium, $r = .30$; and large, $r = .50$. Although the minimum sample required for this study was set at 90 participants, increasing the sample size to 147

increased the power to .95. Increasing the minimum sample size requirement by 25% yields a sample size of 112; therefore, the aim was to recruit between 90 and 147 willing participants for the study. The use of a medium effect size (f = .30) was appropriate for this study.

Procedures for Recruitment

Permission to conduct this study on campus was granted by the college's research department. For this study, a convenience self-sampling approach was used. Men participants were recruited by directly approaching them on campus asking if they would like to participate. Once they agreed, the informed consent that contained the research study information such as a description of the study, how long it was expected to take to complete the study, confidentiality issues, and compensation were provided to each participant. After they read the informed consent and agreed, they were given the demographic survey asking for identifying information such as age that was needed to participate. The informed consent contained the research study information such as a description of the study, how long it was expected to take to complete the study, and information about confidentiality issues and compensation.

Once the participants met the inclusion criteria in their identifying information, they were assigned to either the experimental group (1) or the control group (2) via a computer-generated randomized list of numbers (1,2) and were given the appropriate images to view at that time. The participants were then asked to complete the four surveys immediately after viewing the images. To collect from 119 participants, the recruitment process took 3 weeks.

Data Collection

The participants were asked to complete an informed consent form for participation in this study. They were also asked to complete a demographic survey (Appendix A) that asked information about their age, current level of fitness, and current height and weight to calculate BMI. Each group of randomly assigned participants was asked to view the seven images provided for their condition in the same order and were given 10 seconds to view each image. All the participants were then asked to complete the four assigned survey scales immediately after viewing the media images. Once these were completed they were collected and the raw data were inputted in SPSS.

Instrumentation and Operationalization of Constructs

An informed consent and self-report demographic questionnaire (Appendix A) were given to the participants prior to the study. As stated earlier, the BMI was calculated based on self-reported weight and height (Watkins et al., 2008). The level of fitness was measured according to self-reported workout frequency per week.

The idealized media images were of male models posing in fitness attire, fashionable clothing, or in limited clothing. The neutral images were of landscapes such as mountains, beaches, and terrains. The participants were informed that the images were selected via the internet from Google and Yahoo search engines. The reason that the participants were only given 10 seconds to view each image was because research studies such as Ferguson et al. (2011) have suggested that a greater and longer time to media exposure created media saturation or a "ceiling effect," which subsequently created a smaller effect size. The four outcome scales were completed right after viewing the

images. The whole experiment lasted approximately 15 minutes per participant, per group.

The BES was used to measure body dissatisfaction. It is a gender-specific 35-item scale that is structured on a 5-point Likert-scale format, with scores of 1 and 5 that represent both negative and positive feelings (Byrne, 1996). The Likert scores are summed across all items to yield a total score, and across subsets of items to produce subscale scores. The total scores range from 32 to 160, with higher scores indicating greater body satisfaction (Franzoi, 1994; Franzoi, & Shields, 1984). The BES for women has three subscales that measured Sexual Attractiveness (SA), Weight Concern (WC), and Physical Condition (PC; Frost, Franzoi, & Oswald, 2018). The men's subscales include subscales that measure Physical Attractiveness (PA), Upper Body Strength (UBS), and Physical Condition (PC; Frost, Franzoi, & Oswald, 2018). PA had 11 items that assessed facial features and aspects of physique that determined how handsome a man was when considering facial profile. UBS contained questions about nine upper body parts and functions that change with strength-building exercises, while PC consisted of 13 items that focused on body parts and functions measuring agility and physical fitness (Frost, Franzoi, & Oswald, 2018).

The BES scale had been administered to 331 males and 633 females enrolled in undergraduate courses in a research study. The coefficient alpha was computed for males and females: for males the internal consistency resulted in alpha coefficients of .81 for attractiveness, .85 for the upper body strength, and .86 for the general physical condition factor, and females' alpha coefficients were .78 for attractiveness, .87 for the weight

concern factor, and .82 for the physical condition factor (Franzoi, & Shields, 1984). Based on these scores, it was concluded that the responses for each subscale were reasonably internally consistent. This study also reported adequate convergent and discriminant validity (Franzoi, & Shields, 1984). In general, this scale did not usually deny negative self-attributes; however, there was a slight sensitivity to unrealistically attribute positive traits to self (Franzoi, 1994).

The EAT-26 was originally designed in 1979 by Garner and Garfinkel to screen for symptoms of anorexia nervosa. High scores usually indicated a propensity for patients being diagnosed with anorexia nervosa. The original EAT-26 scale consisted of 40 items representing the following three factors: Dieting (related to avoidance of fattening foods and the preoccupation with being thinner; also, distorted body image), Bulimia and Food Preoccupation (related to thoughts about food, body weight, body image, and indications of bulimia), and Oral Control (related to self-control of eating, low weight, absence of bulimia, and perceived pressure from others to gain weight; Orbitello et al., 2006). Garner et al. (1982) reduced the original EAT-40 to the EAT-26, which is just as robust with clinical and psychometric variables relating to bulimia, weight, and self-perception of body shape (Ocker et al., 2007). This scale had good correlation between emotional distress and body image; however, it was limited in its use of detecting bulimic symptoms and behaviors (Orbitello et al., 2006).

It contains three subscales: dieting behavior (13 items), bulimia nervosa and food preoccupation (six items), and oral control (six items), and is considered an objective, self-report measure. The test itself prompts individuals to respond to 26 items on a 6-

point Likert-type scale with answers ranging from *never* (0), *rarely* (0), *sometimes* (0), *often* (1), *usually* (2), to *always (3)* for all items except for Item 26*,* which is scored as follows: *always, usually,* and *often* receive a score of 0*, sometimes* a score of 1*, rarely* a score of 2*,* and *never* a score of 3 (Koslowsky et al., 1992). A total test score at or above 20 indicates that the individual was at risk for an eating disorder (ED) (Koslowsky et al., 1992).

A study by Koslowsky et al. (1992) recruited 809 female soldiers with over 90% of them being 18 or 19 years old. The participants completed the EAT-26 and the Body Image Scale. Cronbach's coefficient alpha was used to determine the reliability of each scale. The values for both scales were .83 and .90, respectively (Koslowsky et al., 1992). The first factor, Dieting, has the highest reliability (.90) with Oral Control and Food Preoccupation showing reliability values of .74 and .56 respectively. The EAT-26 is significantly correlated with the Body Image Scale (r = .43). Gross, Rosen, Leitenberg, and Willmuth (1986) stated that the concurrent validity of this instrument has been assessed in their research study as follows. The EAT-26 was given to 82 women who participated in an ED study and met the criterion for bulimia nervosa. The results suggested concurrent validity of the instrument as well as criterion validity by discriminating bulimia nervosa subjects from normal subjects (Gross et al., 1986).

The *Drive for Muscularity* (*DMS*) is a 15-item self-report scale that measures the individual's perception of whether he or she is muscular enough, how muscular they were, and how muscular they wished to be (McCreary, 2007). This includes information about muscle mass or bulk that should be added to their body frames to appear more

desirable. This scale was developed by polling men and women who were actively involved in weight training at a local gym and by examining the content of weight training magazines (McCreary, 2007) Although DMS was more prevalent for men, this scale was used for both boys/men and girls/women and the respondents were asked to indicate which series of attitudes and behaviors were descriptive of themselves (McCreary, Saucier, & Courtenay, 2005).

The DMS has two subscales: Behavioral and Attitude. The items on the Behavioral subscale included 2, 3, 4, 5, 6, 8, 10, and 12 while the Attitude subscale had items 1, 7, 9, 11, 13, 14, and 15 (McCreary, 2007). Each item on the DMS was scored on a 6-point scale ranging from always (1) to never (6). Since higher scores on the DMS were indicative of higher levels of the drive for muscularity, all DMS items needed to be reverse coded before the scale was scored (McCreary, 2007). The internal consistency, alpha coefficients were above .80, indicating acceptable reliability (McCreary, 2007). Furthermore, the DMS had alpha reliability estimates ranging from .85 to .91 in different reports. McCreary (2007) reported a corrected item-total correlation of .37 to .65 with a high 7-to 10-day test-retest correlation in a sample of men: .93 for the entire scale, .84 for the muscularity attitudes, and .96 for the muscularity behaviors.

To determine what the construct validity of the DMS was using the underlying factor structure an exploratory factor analysis (EFA) of the 15-item DMS was conducted with male and female university students. The factor loadings suggested there were differences among the behaviors: Women used different behaviors than men to gain muscle mass such as weight training to appear thinner while men desired to appear bigger

(McCreary, 2007). Concurrent validity was measured by assessing the differences between groups also known as known-group differences (McCreary, 2007). It appeared there were significant gender differences on 12 of the 15 items and that men scored higher than women when these differences were significant (McCreary, 2007).

Convergent validity examined the degree that the DMS was associated with other constructs. There was a significant correlation (r = .83) between the DMS and the Swansea Muscularity Attitudes Questionnaire (SMAQ) in a sample of college-age men and women although there were no reported gender correlations (McCreary, 2007). Discriminant validity explored the degree to which the DMS was uncorrelated with measures with which it should not theoretically be correlated. The DMS was not correlated with measures of the drive for thinness and had a low correlation value between the two values even if both measured the desire to have a low level of body fat (McCreary, 2007). The DMS was shown to have good discriminant validity. Also, the DMS and the EAT-26 scores were uncorrelated among girls but positively correlated among boys (r = .37).

The SRDS was developed in 1965 by Zung for measuring psychological, affective, cognitive, behavioral, and somatic aspects of depression (Cusin, Yang, Yeung, & Fava, 2009; Jegede, 1976). It is a 20-item, four-point scale self-report questionnaire developed to reflect common clinical symptoms in which half of the items were worded negatively and the other half positively (Shafer, 2006). Some of the symptoms on the self-report were (1) I feel down-hearted and blue, (2) I have trouble sleeping at night, (3)

I am more irritable than usual, and (4) I still enjoy sex (Cusin, Yang, Yeung, & Fava, 2009).

The respondents were asked to rate each item that ranged from 1 to 4 in terms of how frequently they experienced each symptom, in the present moment (Cusin, Yang, Yeung, & Fava, 2009). A total score is derived by adding the item scores (1-4) with a range from 20 to 80 (Dunstan, Scott, & Todd, 2017; Zung, 1965). The items were scored as: 1 = A little of the time, 2 = Some of the time, 3 = Good part of the time, and 4 = Most of the time. Most people with depression had scores between 50 and 69, with severe depression above 70 (Cusin, Yang, Yeung, & Fava, 2009).

The psychometric properties for the SRDS were taken from two different studies. The first group consisted of 213 male and female addict patients in a medical clinic in Brooklyn, New York while the second study consisted of 206 female and male medical students in Lagos, Nigeria (Jegede, 1976). The addicts had a coefficient alpha of .75 while the medical students had a coefficient alpha of .79.

Another study involved 299 (203 men and 96 women) undergraduate students enrolled in a psychology course at a Midwestern university. The researchers sought to understand how basic psychological needs, such as the need for autonomy, competence, and relatedness were mediators between adult attachment and distress (Wei, Shaffer, Young, & Zakalik, 2005). This study had a coefficient alpha of .85 (Wei, Shaffer, Young, & Zakalik, 2005). A different study had a larger convenience sample of n = 1109 of which only 1017 cancer patients were used because of missing data. These participants were recruited from 25 different oncology clinics in urban and rural areas throughout

Indiana. This study was interested in understanding how depressive symptoms impacted physical, emotional, and social functioning in cancer patients to improve their quality of life (Dugan et al., 1998). This study generated an alpha coefficient of .84, indicating an elevated level of internal consistency (Dugan et al., 1998). Dunstan, Scott, and Todd (2017) used the SRDS scale to understand depression in a community and clinical sample. The researchers involved 376 adult participants (340 undergraduate psychology students and 36 participants who volunteered for psychological treatment). The SRDS had a fair internal consistency, with a split-half reliability of .73 and a Cronbach's alpha of .86 (Dunstan, Scott, & Todd, 2017).

Data Analysis Plan

A quantitative, experimental design was conducted to determine how idealized media images and neutral images (independent variable) impacted body dissatisfaction, drive for muscularity, eating attitudes, and depression (dependent variables). The covariates used were level of fitness and BMI. The demographic information was collected ahead of time to determine inclusion and exclusion criteria for each of the participants recruited.

This study employed a one-way between-group design (media images: idealized, neutral), with four dependent variables: body satisfaction, disordered eating, drive for muscularity, and depression. The covariates were BMI and level of fitness, which reduced within-group variance. I assumed that the covariates, level of fitness and BMI, were related to body dissatisfaction, drive for muscularity, disordered eating, and depression, but not to the intervention type (idealized and neutral images).

This study used statistical software for the Social Sciences, IBM SPSS 24.0 to test statistical significance among the data collected. The data collected were entered into an SPSS data file, screened, and cleaned to ensure quality of data. Screening the data prior to the analysis assisted in making sure that the data were accurate, complete, and legitimate so that the results were not based on erroneous conclusions (Mertler & Vannatta, 2005). It was imperative that the analysis of data be as accurate and complete to assess for adequacy of fit between the data and the assumptions of a specific procedure (Mertler & Vannatta, 2005, p. 26).

The data were examined using frequency distributions and descriptive statistics by using the SPSS Frequencies procedure. Having examined the range of values, I identified outlier values and corrected using the Winsor method. This is described in Chapter 4.

Linearity presupposes that there is a straight-line relationship between two variables, such as the raw data variables (Mertler & Vannatta, 2005). Appendix C illustrates linearity utilizing Q-Q plots for each scale. The values you would expect to get in a normal distribution (expected values) are plotted against the values seen in the data set (observed values) (Field, 2005).

Homoscedasticity is related to the assumption of normality in that the variability in scores for one continuous variable is about the same as at all values of another continuous variable which is typically displayed as a cloud of dots evenly spaced around the line (Field, 2005; Mertler & Vannatta, 2005). Normally distributed data should fall on the straight line, meaning the observed data would be what you expect from a normal distribution. The observed data indicated there was no violation of homoscedasticity

since the distribution was not triangular or not curvilinear (Field, 2013). Homoscedasticity was depicted in Appendix D.

A one-way analysis of covariance (ANCOVA) was performed to determine if there were any significant differences between the independent variable (idealized media images, neutral images) and the dependent variables (body dissatisfaction, drive for muscularity, disordered eating, and depression), when controlling for the covariates. The covariates were level of fitness and BMI. I ran these variables to test the following hypotheses:

These were the research questions and hypotheses:

RQ1: What is the relationship between viewing idealized media images and neutral images (independent variable) and body dissatisfaction (dependent variable) as measured by the BES in undergraduate male students independent of BMI and fitness level?

$H_0$1: There is no difference in body dissatisfaction between the group that views the idealized media images and the group that views the neutral images on body dissatisfaction as measured by the BES while controlling for level of fitness and BMI.

H_a1: There is a significant difference in body dissatisfaction between the group that views the idealized media images and the group that views the neutral images on body dissatisfaction as measured by the BES while controlling for level of fitness and BMI.

RQ2: What is the relationship between viewing idealized media images and neutral images (independent variable) and drive for muscularity (dependent variable) as measured by the DMS in undergraduate male students independent of BMI and fitness level?

$H_0$2: There is no difference in drive for muscularity between the group that views the idealized media images and the group that views the neutral images on drive for muscularity as measured by the DMS while controlling for level of fitness and BMI.

H_a2: There is a significant difference in drive for muscularity between the group that views the idealized media images and the group that views the neutral images on drive for muscularity as measured by the DMS while controlling for level of fitness and BMI.

RQ3: What is the relationship between viewing idealized media images and neutral images (independent variable) and disordered eating (dependent variable) as measured by the EAT-26 in undergraduate male students independent of BMI and fitness level?

$H_0$3: There is no difference in disordered eating between the group that views the idealized media images and the group that views the neutral images on eating behavior as measured by the EAT-26 while controlling for level of fitness and BMI.

H_a3: There is a significant difference in disordered eating between the group that views the idealized media images and the group that views the neutral

images on eating behavior as measured by the EAT-26 while controlling for level of fitness and BM.

RQ4: What is the relationship between viewing idealized media images and neutral images (independent variable) and depression (dependent variable) as measured by the SRDS independent of BMI and fitness level?

$H_0$4: There is no difference in depression between the group that views the idealized media images and the group that views the neutral images on depression as measured by the SRDS while controlling for level of fitness and BMI.

H_a4: There is a significant difference in depression between the group that views the idealized media images and the group that views the neutral images on depression as measured by the SRDS while controlling for level of fitness and BMI.

Threats to Validity

There were threats to validity that were considered for this experimental study. All the instruments in this study had been tested for validity and reliability. This sample was not representative of all adult males therefore the results from this study were not generalizable to the U.S. adult population. Each of the participants had to be manually prompted to question number four of the DMS since there were missing lines for the question. This may have been distracting and may have affected their concentration. Another component was social desirability meaning did the participants answer the survey questions to please me instead of answering objectively? Also, did the participants

honestly self-report their level of exercise and BMI? I did not ask the participants if they answered this last question honestly because it would seem awkward and insensitive to ask this and I was cautious about not causing any psychological harm.

Other limitations included the participants' English fluency. If English was not their first language, this may have posed a risk to objectivity. It was noted that some of the participants came from various ethnic backgrounds and some had accents, yet they were able to read and understand the directions for completing the study. The participants' level of focus and motivation to answer the surveys after viewing the images may be thwarted as well if they were distracted or tired from being in class. Having used a quiet area of the campus helped to control for fatigue and possible distractions.

Ethical Procedures

The necessary IRB permission forms were submitted and approved by Walden University to minimize harm to participants. Once IRB approval was obtained from Walden University, the participants were given the informed consent to read. It was advised the participants could withdraw at any time, that their participation was voluntary, and that confidentiality and anonymity would be maintained always. Participants were advised to ask questions at any time during my research study to minimize misunderstandings about the study procedures.

None of the completed surveys had participants' names attached to them, only identification numbers (CODING); the raw data were password protected once it was transferred electronically to SPSS. The demographic information was also coded to de-identify the participants so that there was no possibility of their identities being disclosed.

To protect confidentiality, no names or other identifying information was collected, and all surveys received an ID number.

Furthermore, the collected information and data were inputted in an SPSS data file and stored on a password protected personal computer and, on a password, protected flash drive. The data will be stored in sealed envelopes for 7 years in a locked box in my home, then will be deleted. Furthermore, potential ethical issues were addressed and disclosed to the Institutional Review Board (IRB).

Summary

This chapter focused on the research design, sample population, research setting, and scales used to explore the relationship between exposure to idealized media images, body dissatisfaction, drive for muscularity, eating pathology, and depression among adult college male participants. In this chapter, the sample groups, size, and population were discussed as related to the study. The research design, research setting, and data collection and analysis were also examined. The participants ($N = 119$) completed the demographic survey asking about their current level of fitness and BMI. They were asked to complete the same four surveys after viewing the media images. The four research questions, four hypotheses, instrumentation, debriefing, and the statistical analysis using the four different scales were included in Chapter 3. Chapter 4 presents details of the actual study's procedures, as well as tests of the data to evaluate the research hypotheses.

Chapter 4: Results

The purpose of this quantitative research study was to explore the relationship between the independent variable, media images (neutral, idealized body images), and the dependent variables of body dissatisfaction, drive for muscularity, disordered eating, and depression, with covariates of BMI and frequency of workout. I used a quantitative method to measure the dependent variables and covariates. I made comparisons of the dependent variables between those who viewed idealized body images and those who viewed the neutral images.

Data Collection

I requested initial IRB permission to conduct this research on March 27, 2017 and permission was granted on June 9, 2017. Subsequently, a Request for Change in Procedures was needed to be made to replace the previous scale, Becks Depression Inventory, with the new scale, SRDS. This change was made on December 5, 2017 and approved on December 18, 2017 with the approval number of 06-09-17-0143661 and expiration date of June 8, 2018. The IRB application included the informed consent, the demographic survey (Appendix A), BES (Byrne, 1996), DMS (McCreary, 2007), EAT-26 (Garner et al., 1982), SRDS (Zung, 1965), male model images, landscape images, approval letter from XX Community College, Research Randomizer (Appendix B), permission requests to use the four scales (Appendix E), and the Human Research Protections training under the National Institutes of Health's Office of Extramural Research certificate #2324829 dated 2-22-2017.

The data collection began on January 29, 2018 and continued until March 2, 2018. This process required more time than had been expected. The amount of time I was on campus administering and collecting surveys was a total of 10 days within this 5-week period. I recruited the participants on the campus (lunch patio, front of the campus, outside of the auditorium) of the community college by asking if they would like to participate in my experimental research in exchange for a $5 coffee gift card. Once the participants agreed, they were asked to read the informed consent and complete the demographic survey (Appendix A).

Each participant was then assigned a number from the Research Randomizer (Appendix B) list, with 1 for assignment to the experimental group (idealized male body images) and 2 for the control group (landscape images). I then numbered my surveys according to the list provided in Appendix B and recruited my participants for each group. For example, participant 1 was part of group 2; therefore, this person's identifying code was 1-2. The number each participant received was placed on their informed consent as their name.

I also asked participants to write their height and weight in feet, inches, and pounds on top of the EAT-26 (Garner et al., 1982) questionnaire so that it could be inputted into SPSS for conversion to BMI (BMI = kg/m^2). I directed each participant to question 4 of the DMS (McCreary, 2007) to insure they wrote down a number response because that row had missing values. The anticipated completion time was 15 minutes to view the seven images, complete the five surveys, and for me to check for missing values. The completion time for each participant varied between 10 and 30 minutes.

Characteristics of the Participants

All the participants were male students at the community college. There were no missing data from the 119 respondents. Their ages ranged from 18-29 years of age with 70% of participants ranging in age 18 to 20 years and 30% between 21 and 29 years of age. The sample was split between freshmen (*n* = 64, 53.8%) and sophomore (*n* = 55, respondents. As shown in Table 1, participants identified as White (*n* = 44, 37%), Other (*n* = 15, 12.6%), Multiple Races (*n* = 13, 10.9%), Mexican (*n* = 12, 10.1%), Asian (*n* = 12, 10.1%), Black (*n* = 8, 6.7%), Other Hispanic (*n* = 8, 6.7%), Cuban (*n* = 4, 3.4%), and Native American (*n* = 3, 2.5%).

Table 1

Age Range, Level of Education, and Ethnicity

Variable	N	%
Age Range		
18-20	84	70.60
21-29	35	29.40
Total	119	100
Level of Education		
Freshman	64	53.80
Sophomore	55	46.20
Total	119	100
Ethnicity		
White	44	37
Black	8	06.70
Native American	3	02.50
Asian	12	10.10
Multiple Races	13	10.90
Mexican	12	10.10
Cuban	4	03.40
Other Hispanic	8	06.70
Other	15	12.60
Total	119	100

Note. (N = 119).

Internal Reliability of the Dependent Measures

Before proceeding with the scoring of the measures used for the dependent variables, it was important to evaluate their reliability for the sample under study. **I ran** Cronbach's alpha reliability analysis on the BES, DMS, EAT-26, and SRDS. In general, alpha coefficients of .70 or higher are considered acceptable in social science research. The results for each of my measures indicated sufficient internal reliability (Field, 2005). Table 2 summarizes these results.

Table 2

Internal Reliabilities of Dependent Measures

Instrument	Cronbach's alpha
BES	.936
DMS	.708
EAT-26	.794
SRDS	.883

Note. (N = 119). Body Esteem Scale (BES), Drive for Muscularity Scale (DMS), Eating Attitudes Scale (EAT-26) and Self-Rating Depression Scale (SRDS)

Scoring and Descriptive Statistics for Dependent Measures

Prior to computation and scoring of the covariates and dependent measures, I inspected the data to identify any missing values. Three outliers were identified from the four scales. Two of the outliers were from the DMS and the other one from the EAT-26. The DMS had two extreme values, 34 and 74, while the EAT-26 had one extreme value

of 47. Instead of deleting these values, they were converted using the Winsorize method. Charles Winsor developed this procedure to not reject or delete an outlier but to transform it to the nearest value of an observation that was not considered an outlier itself and adding a +1 value (how2stats, 2016). The values 34, 74, and 47 were converted to 37, 70, and 34, respectively.

The following procedures were used to compute values or scores for each of the covariates and dependent measures that were used for further analyses. BMI was calculated using the following formula: BMI = kg/m^2. Frequency of workout score was operationally defined as the rating for the one item on the demographic survey. Scores for the dependent variables were the mean ratings for the items in each scale. Descriptive statistics for all measures, following corrections for outliers, are presented in Table 3.

Table 3

Descriptive Statistics for Height, Weight, Fitness, BMI, BES, DMS, EAT-26, and SRDS

Variable	Min	Max	M	SD
Height	64	77	70.14	2.74
Weight	120	280	173.73	32.76
Fitness	1	5	3	1.12
BMI	16	41	24.90	4.50
BES	60	156	113.53	22.91
DMS	38	70	55.51	7.71
EAT-26	1	34	13.50	7.77
SRDS	26	71	45.32	8.91

Note. Body Esteem Scale (BES), Drive for Muscularity Scale (DMS), Eating Attitudes Test–26 (EAT-26), and Self-Reporting Depression Scale (SRDS).

Prescreening of Data

During the preliminary analysis phase, I evaluated the data for the dependent scale scores to see if they met the assumptions of the planned analyses, one-way ANCOVAs: normality, linearity, homoscedasticity, homogeneity of variance, and homogeneity of regression.

I used the Kolmogorov-Smirnov test as one measure of normality of the distribution of scores. According to Field (2005), when the results of the test are nonsignificant ($p > .05$), normality is acceptable. As shown in Table 4, the EAT-26 and SRDS appeared to violate the assumption of univariate normality. However, further

inspection of Q-Q plots for these variables (see Appendix C) suggested relative normality. The ANCOVA generally is considered a robust test when there are some violations of the assumption of normality (Mertler & Vannatta, 2005). Other assumptions for the ANCOVA were evaluated as part of the analyses to test the research hypotheses.

Table 4

Tests for Normality of Distributions of Dependent Variables

Variable	Statistic	Kolmogorov-Smirnov *df*	*p*
BES	.071	119	.200
DMS	.063	119	.200
EAT-26	.128	119	.000
SRDS	.104	119	.010

Note. (*N* = 119). Body Esteem Scale (BES), Drive for Muscularity Scale (DMS), Eating Attitudes Test–26 (EAT-26), and Self-Reporting Depression Scale (SRDS).

Results

Research Question 1

RQ1: What is the relationship between viewing idealized media images and neutral images (independent variable) and body dissatisfaction (dependent variable) as measured by the BES in undergraduate male students independent of BMI and fitness level?

A one-way, between-group analysis of covariance (ANCOVA) was conducted to evaluate body satisfaction as measured by the BES. The independent variable was type of media images (idealized body, neutral) and the two covariates were BMI and workout

frequency (fitness level). The Levene's test was used to identify homogeneity of variance. It is an inferential statistic used to assess the equality of variances for a variable calculated for two or more groups. If the test was significant, then the equality-of-variance assumption would be violated (Green & Salkind, 2008). Results of the Levene's test showed that this assumption was not violated, $F(1,117) = .948$, $p > .05$ (Table 5). An evaluation of the homogeneity of regression assumption (Table 5) indicated that the relationship between the covariates (BMI and workout frequency) and the dependent variable (body satisfaction) did differ between the three groups, $F(2,113) = 8.515$, $p < .001$; therefore the assumption of homogeneity of regression slopes was violated and results of the ANCOVA must be interpreted with caution .

Relationships between the covariates and body satisfaction were assessed. There was a statistically significant correlation between BMI and body satisfaction, $F(1, 115) = 18.98$, $p < .001$, partial eta squared = .142 , which indicated a moderately strong relationship between the two variables. Likewise, workout frequency was also significantly correlated with body satisfaction, $F(1, 115) = 44.65$, $p < .001$; partial eta squared = .280, which denoted a strong relationship.

Table 6 presents the results of the ANCOVA to evaluate between-group differences in body satisfaction (BES scores) as a function of the type of media images that were presented (ideal body, neutral). These results suggested there was no difference in body satisfaction between the group that viewed the idealized media images and the group that viewed the neutral images as measured by the BES while controlling for level

of fitness and BMI. There was however a significant relationship between body satisfaction, BMI and workout frequency.

Table 5

Homogeneity of Regression –Body Esteem Scale (BES)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	30237.88	5	6047.58	21.56	.000	.488
Intercept	21956.86	1	21956.86	78.28	.000	.409
Group	8.41	1	8.41	.03	.863	.000
BMI	8440.35	1	8440.35	30.09	.000	.210
Workout frequency	2730.70	1	2730.70	9.74	.002	.079
Group* BMI* Workout frequency	4776.69	2	2388.35	8.52	.000	.131
Error	31695.77	113	280.49			
Total	1595716.00	119				
Corrected total	61933.65	118				

Table 6

ANCOVA: Hypothesis 1 –Between-Group Differences for the Body Esteem Scale (BES)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	25461.19*	3	8487.07	26.76	.000	.411
Intercept	42027.93	1	42027.93	132.52	.000	.535
Group	.02	1	.02	.00	.995	.000
BMI	6020.24	1	6020.24	18.98	.000	.142
Workout frequency	14160.29	1	14160.29	44.64	.000	.280
Error	36472.46	115	280.50			
Total	1595716.00	119				
Corrected total	61933.65	118				

*R Squared = .411 (Adjusted R Squared = .396); alpha = .05.

Research Question 2

RQ2: What is the relationship between viewing idealized media images and neutral images (independent variable) and drive for muscularity (dependent variable) as measured by the DMS in undergraduate male students independent of BMI and fitness level?

The Levene's test was used to identify homogeneity of variance. The results of this analysis showed that this assumption was not violated, $F(1,117) = .333$, $p > .05$. An evaluation of the homogeneity of regression assumption (Table 7) indicated that the relationship between the covariates (BMI and workout frequency) and the dependent

variable (drive for muscularity) did not differ between the three groups, $F(2,113) = .800$, $p > .05$; therefore the assumption of homogeneity had not been violated.

Table 7

Homogeneity of Regression - Drive for Muscularity (DMS)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	727.15	5	145.43	2.500	.035	.100
Intercept	1181.17	1	1181.17	20.303	.000	.152
Group	32.65	1	32.65	.561	.455	.005
BMI	46.80	1	46.80	.804	.372	.007
Workout frequency	37.93	1	37.93	.652	.421	.006
Group* BMI* Workout frequency	93.10	2	46.55	.800	.452	.014
Error	6574.03	113	58.18			
Total	371911.00	119				
Corrected total	7301.18	118				

The results of the ANCOVA are presented in Table 8. There was no significant effect of media images on the drive for muscularity, $F(1, 115) = 1.967$, $p > .05$, partial eta squared = .017. Furthermore, the covariate, BMI, showed no significance related to the drive for muscularity, $F(1, 115) = .418$, $p > .05$, partial eta squared = .004. However, workout frequency did show significance, $F(1, 115) = 9.297$, $p < .01$, partial eta squared = .075. These results revealed there was no difference in drive for muscularity between

the group that viewed the idealized media images and the group that viewed the neutral images as measured by the DMS while controlling for level of fitness and BMI. Furthermore, there was no relationship between drive for muscularity and BMI; however, there was a correlation between workout frequency and drive for muscularity.

Table 8

ANCOVA: Hypothesis 2 – Between-Group Differences for the Drive for Muscularity Scale (DMS)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	634.06*	3	211.35	3.65	.015	.087
Intercept	10343.72	1	10343.72	178.42	.000	.608
Group	114.05	1	114.05	1.97	.163	.017
BMI	24.23	1	24.23	.42	.519	.004
Workout frequency	539.02	1	539.02	9.30	.003	.075
Error	6667.12	115	57.98			
Total	371911.00	119				
Corrected total	7301.18	118				

*R Squared = .411 (Adjusted R Squared = .396); alpha = .05.

Research Question 3

RQ3: What is the relationship between viewing idealized media images and neutral images (independent variable) and disordered eating (dependent variable) as measured by the EAT-26 in undergraduate male students independent of BMI and fitness level?

A one-way, between-groups ANCOVA was performed. The independent variable was type of media images presented, the dependent variable was eating attitudes, as measured by the EAT-26, and the covariates were BMI and workout frequency.

Levene's test was used to evaluate homogeneity of variance. Analysis showed that this assumption was not violated, $F(1,117) = .233$, $p > .05$. An evaluation of the homogeneity of regression assumption (Table 9) suggested that the relationship between the covariates (BMI and workout frequency) and the dependent variable (eating attitudes) did not differ between the three groups, $F(2,113) = .730$, $p > .05$; therefore, the assumption of homogeneity had not been violated.

Table 9

Homogeneity of Regression – Eating Attitudes Test (EAT-26)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	785.87	5	157.17	2.81	.020	.110
Intercept	37.13	1	37.13	.66	.417	.006
Group	3.42	1	3.42	.06	.805	.001
BMI	1.94	1	1.94	.04	.853	.000
Workout frequency	48.76	1	48.76	.87	.353	.008
Group*BMI* Workout Frequency	81.80	2	40.90	.73	.484	.013
Error	6329.88	113	56.02			
Total	28817.00	119				
Corrected total	7115.75	118				

The results of the ANCOVA (Table 10) indicated that there was no statistical significance between the independent variable, media images, and the dependent variable, eating attitudes, $F(1, 115) = .318$, $p > .05$, partial eta squared = .003, controlling for covariates. The interaction between the covariate BMI and eating attitudes did show statistical significance, $F(1, 115) = 12.01$, $p < .001$, partial eta squared = .095 while the interaction between the covariate workout frequency and eating attitudes did not, $F(1, 115) = 2.157$, $p > .05$, partial eta squared = .018.

There was no significant difference in disordered eating between the group that viewed the idealized media images and the group that viewed the neutral images as measured by the EAT-26 while controlling for level of fitness and BMI. therefore the alternative hypothesis was rejected, and the null hypothesis was retained. There was however a relationship between eating attitudes and BMI and not for workout frequency and eating attitudes.

Table 10

ANCOVA: Hypothesis 3 – Between-Group Differences for the Eating Attitudes Test (EAT-26)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	704.07*	3	234.69	4.21	.007	.099
Intercept	16.36	1	16.36	.29	.589	.003
Group	17.71	1	17.71	.32	.574	.003
BMI	669.61	1	669.61	12.01	.001	.095
Workout frequency	120.28	1	120.28	2.16	.145	.018
Error	6411.68	115	55.75			
Total	28817.00	119				
Corrected total	7115.75	118				

*R Squared = .411 (Adjusted R Squared = .396); alpha = .05.

Research Question 4

RQ4: What is the relationship between viewing idealized media images and neutral images (independent variable) and depression (dependent variable) as measured by the SRDS independent of BMI and fitness level?

The Levene's test was used to identify homogeneity of variance. The results of this analysis showed that this assumption was not violated, $F(1,117) = .183$, $p > .05$. An evaluation of the homogeneity of regression assumption (Table 15) indicated that the relationship between the covariates (BMI and workout frequency) and the dependent variable (depression) did not differ between the three groups, $F(2,113) = 2.040$, $p > .05$, therefore the assumption of homogeneity had not been violated.

Table 11

Homogeneity of Regression – Self-Rating Depression Scale (SRDS)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	2322.51	5	464.50	7.45	.000	.248
Intercept	156.28	1	156.28	2.51	.116	.022
Group	68.45	1	68.45	1.10	.297	.010
BMI	549.70	1	549.70	8.81	.004	.072
Workout frequency	119.56	1	119.56	1.92	.169	.017
Group*BMI* Workout frequency	254.44	2	127.22	2.04	.135	.035
Error	7047.35	113	62.37			
Total	253777.00	119				
Corrected total	9369.87	118				

Table 12 depicts the results of the ANCOVA in which no statistical significance was determined between the independent variable, media images, and the dependent variable, depression, $F(1, 115) = .687$, $p > .05$, partial eta squared = .006, controlling for covariates. There was statistical significance for both of the covariates BMI, $F(1, 115) = 10.264$, $p < .01$, partial eta squared = .082 and workout frequency, $F(1, 115) = 14.817$, $p < .001$. partial eta squared = .114, respectively.

These results indicated there was no difference in depression between the group that viewed the idealized media images and the group that viewed the neutral images as

measured by the *Self-Rating Depression Scale (SRDS)* while controlling for level of fitness and BMI, therefore the alternative hypothesis was rejected, and the null hypothesis was retained. There was however a relationship between depression, BMI and workout frequency.

Table 12

ANCOVA: Hypothesis 4 – Between-Group Differences for the Self-Rating Depression Scale (SRDS)

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	2068.08*	3	689.36	10.86	.000	.221
Intercept	3928.19	1	3928.19	61.87	.000	.350
Group	43.63	1	43.63	.69	.409	.006
BMI	651.69	1	651.69	10.26	.002	.082
Workout frequency	940.80	1	940.80	14.82	.000	.114
Error	7301.79	115	63.49			
Total	253777.00	119				
Corrected total	9369.87	118				

*R Squared = .411 (Adjusted R Squared = .396); alpha = .05.

Summary

The results of this study indicated there was no evidence that reflected support for the hypotheses. The overall results indicated that there was no statistical significance between the dependent variables (body satisfaction, eating attitudes, drive for muscularity, and depression) as a function of media images (idealized and neutral). The

two distinct groups of participants showed no differences in influence regarding viewing both types of images. The results indicated that the covariate BMI was statistically significantly correlated with body esteem, eating attitudes and depression but not for drive for muscularity. The covariate workout frequency was statistically significant with body esteem, drive for muscularity, and depression but not for eating attitudes.

Chapter 5 includes a discussion of the interpretation of the findings that confirmed, disconfirmed, or extended knowledge with what I have researched. I explain the limitations of this study in terms of generalizability, trustworthiness, validity, and reliability. Recommendations were given that were grounded in the strengths and limitations of this current study. Implications for positive social change were also discussed within the range of this research study so that future research could be developed.

Chapter 5: Discussion, Conclusions, and Recommendations

Research has shown the effects that media images have on overall body satisfaction and behaviors pertaining to exercise and eating, more so for women (Fredrickson & Roberts, 1997; Lindner , 2012; Tiggeman & Kuring, 2004). Although more research has been conducted on women than men, there was research that indicated men were more susceptible to comparing themselves with these images, which increased vulnerability to negative consequences such as disordered eating and overexercising (Chia & Wen, 2010; Pritchard & Cramblitt, 2014).

The media's representation of men and women has been increasingly restrictive, with female models 15% below the average weight and men represented as very muscular with well-developed chest and wide shoulders (Pritchard & Cramblitt, 2014). The content of mass media images has consistently focused on these characteristics as the norm for both men and women (Kraus & Martins, 2017). Men who were more influenced by westernized male societal standards, such as physical strength and patriarchal dominance, experienced more issues with body satisfaction due to perceived gender role status (Moradi, 2010; Parent & Moradi, 2011). There has been more research on men's level of body satisfaction, exercise, and eating behaviors over the past 20 years; however, the research has been limited in comparison to women regarding media images and men's susceptibility to experience depression.

The purpose of this quantitative, experimental study was to explore the relationship between the independent variables (neutral and idealized media images) and the dependent variables (body dissatisfaction, drive for muscularity, disordered eating,

and depression). Data were collected from freshman and sophomore men students at a local community college ($N = 119$). The participants were separated into two groups: idealized images ($n = 57$) and neutral images ($n = 62$). Each of the participants viewed the corresponding images and then followed up with answering the questionnaires provided. These were collected, inputted into SPSS, and then analyzed. Chapter 5 includes interpretation of these findings relevant to the specific research questions and the hypotheses within the theoretical framework and in the context of previous literature. I also discuss the study limitations, recommendations for future research, and social change implications before the conclusion of this study.

Interpretation of the Findings

Historically, women have been the focus of body image studies; however, over the past decade, more research has focused on men's body image disturbances (Chi, 2015; Heath, Tod, Kannis-Dymand, & Lovell, 2016). The research on exercise, eating disordered behavior, body dissatisfaction, and psychological consequences among men has been limited, mainly due to gender difference stereotypes; men were generally thought of as strong and powerful while women were thought of as weak and vulnerable (Fredrickson & Roberts, 1997).

The objectification and self-objectification theories were formally developed with women in mind and pose that Western culture has socialized women to perceive themselves as aesthetic objects to be looked upon and evaluated more so through the lens of others; this has been conceptualized as self-objectification (Fox & Vendemia, 2016; Heath et al., 2016). In addition, psychological disorders such as depression, eating

disorders, and body shame have been shown to develop when women failed to meet the expectations based on societal standards linked to media images (Fox & Vendemia, 2016; Heath et al., 2016). Because women focus more on their appearance than men and conform more to gender and beauty norms in comparison with men, there was more available research that suggested they are more vulnerable to psychological dysfunction (Fox & Vendemia, 2016). Even though research had suggested that men do not internalize idealized media images the same way women do, men are still seen to be at risk of experiencing negative consequences associated with viewing these images (Johnson et al., 2007; Martin et al., 2006; Olivardia et al., 2004; Watkins et al., 2008).

I performed a between-groups ANCOVA to compare the independent variable (media images) with the dependent variables (body satisfaction, drive for muscularity, disordered eating, and depression) while controlling for BMI and workout frequency. These findings for the sample used showed that there was no significant difference between the two groups after they had viewed either the idealized media images or the neutral images in the development of body dissatisfaction, drive for muscularity, disordered eating, and depression.

In this study, viewing media images was not significantly related to body dissatisfaction, $F(1, 115) = .000$, $p > .05$. Based on previous literature review research, studies have reported that men have experienced an increase in body dissatisfaction in the past 30 years and a desire to build more muscle and decrease body fat (Baird & Grieve, 2006; Farquhar & Wasylkiw, 2007; Ogden & Mundray, 1996). Karazsia, Murnen, and Tylka (2017) found that thinness-related and muscularity-oriented body dissatisfaction

were risk factors for developing disordered eating, depression, and decreased well-being, such as lower life satisfaction, poorer self-esteem, and less self-compassion, optimism, secure attachment, and proactive coping. Body dissatisfaction also developed because of not meeting the societal and gender expectations of masculinity and muscularity (Farquhar & Wasylkiw, 2007; Johnson et al., 2007).

Kraus and Martins (2017) conducted a research study with $N = 481$ male and female participants about streetstyle blogs reinforcing the thin-ideal via social media images. Men in these images were impossibly and idealistically lean and muscular. The results of this study revealed a statistically significant difference $t(476) = 11.55$, $p < .001$ in which individuals who conformed to "streetstyle" (p. 351) blogs also conformed in the same way to traditional media images found in magazines. Furthermore, the participants were also influenced by gender stereotypes such as women being vulnerable and men being dominant and strong, which perpetuated the idea that exposure to these types of images were linked to body image dissatisfaction.

Based on the results of the study by Kraus and Martins (2017), both genders seemed to be influenced to conform to what they see in media images based on societal expectations. This differed from the results of my study, which indicated that the men participants from both groups (experimental and control) were not influenced to conform to societal ideals based on the images that were presented to them (male models and landscape images). There may be variables to consider in my study. For example, my study had a much smaller sample size than the study conducted by Kraus and Martins (2017). Also, my population was pooled from an academic environment versus a social

media platform where education levels may have varied. Another important factor to consider was that my population viewed two very different types of images (idealized and neutral) whereas the other study used regular people, not models, in social media setting. These distinct variables may account for no significant results having been found in my study.

Watkins et al. (2008) examined the relationship between body image and BMI in college men and discovered that BMI was closely related with negative body image. Also, overweight and obese men reported significantly greater levels of negative body image than normal or underweight men due to pressure to attain thinness, which suggests that the men in my study may be susceptible to psychological issues such as depression.

Research studies by both Karazsia et al. (2013) and Hargreaves and Tiggemann (2009) that focused on participants who played sports had reported higher body dissatisfaction, engagement in social comparisons, internalization, and having received pressure from family and peers to lift weights. These same participants also engaged in overexercising and had eating problems. Despite the results not reaching statistical significance, the results show a tendency toward men who engaged very frequently in exercise had an increased propensity to be expected to emulate more of the idealized images, which may lead to increased body dissatisfaction if they felt they could not meet this expectation.

Although objectification and self-objectification theories have focused on women, researchers believed that men were vulnerable to the same effects (Heath et al., 2016). Idealized media images portray men who exceeded average proportions, and these

images have become more muscular in the last 40 years (Heath et al., 2016; Karazsia et al., 2017). These images gave the message to objectify and evaluate themselves accordingly and encouraged the internalization of these impossible images (self-objectification).

Researchers had difficulty in finding evidence that self-objectification was connected to body dissatisfaction, possibly because men do not seem to internalize thinness-related feelings of body shame as women do and instead deny the emotional experiences of muscularity body concerns (Frederick et al., 2007; Heath et al., 2016; Michaels et al., 2013). Karazsia et al., (2017) also found no significant changes in muscularity-oriented body dissatisfaction while Nikkelen et al. (2012) and Hausenblas and Fallon (2002) discovered that viewing these images increased body satisfaction and arousal in their male participants versus the female participants.

Viewing media images was not connected to a drive for muscularity in my research study, $F(1, 115) = 1.967$, $p > .05$, partial eta squared = .017, however workout frequency did show statistical significance, $F(1, 115) = 9.297$, $p < .01$, partial eta squared = .075. Previous research has shown that idealized media images of male models did not portray the average American male and were instead of muscular, toned, lean, physically fit, masculine, young, powerful, and sexually desirable men (Burlew & Shurts, 2013; Lorenzen et al., 2004). This perpetuates the focus on conformity due to societal and gender expectations (Watkins et al., 2008). The data from my study seem to bear this out.

A study conducted by Hobza and Rochlen (2009) found no significant results when they hypothesized that exposure to ideal media images would increase drive for

muscularity and gender role conflict; however, significance was tied to decreased body esteem, which aligns with the results of my study. This indicates that although men feel worse about their bodies, they would not necessarily be driven to increase muscle mass or experience conflict regarding gender expectations.

Another study by Pritchard and Cramblitt (2014) investigated the influence of exposure to media images, societal pressure to conform to the perfect body, drive for thinness, and drive for muscularity in $N = 311$ male and female participants. It was hypothesized that drive for thinness and drive for muscularity in men and women would be connected to internalization of images to achieve the perfect body. The results revealed that the internalization of nonathletic images had an impact on drive for thinness for males and females (Pritchard & Cramblitt, 2014).

There was a relationship between drive for muscularity and internalization of non-athletic images and a lack of significance between drive for muscularity in men and societal pressure to conform. It seemed that the males in this study had an increased desire to gain muscle after viewing non-muscular images; however, this was not for the reason to conform socially. In my study, the males were not driven to gain muscle regardless of having viewed the muscular images or neutral landscape images; this indicates they were not influenced to change by the images. Furthermore, the differences in the results may be tied to the setting such that the males in my study might be more inclined to be focused academically and intellectually rather than on their own bodies. This inward thinking may also be connected to not feeling the need to conform outwardly or socially based on viewing either set of images presented to them.

According to the objectification and self-objectification theories longtime exposure to idealized media images among men was attributed to an increased desire to become more muscular and feel connected to the representation of these images (Daniel, et al., 2014). Grieve and Helmick (2008) hypothesized that men who scored high on self-objectification would have a higher drive for muscularity and men scoring high on self-objectification would subsequently have increased levels of muscle dysmorphia, increased body dissatisfaction, and lower self-esteem.

The results from this study (Grieve and Helmick, 2008) indicated a relationship between self-objectification and a greater desire to build muscle and develop muscle dysmorphia symptoms, possibly to increase dominance and strength tied to gender role expectations. In comparison, the males in my study were not triggered after having viewed the images, even though they were likely saturated with these types of images over an extended period. This continues to indicate that the characteristics of the males in my study may have been different meaning that level of education may be a predictor of a buffer against susceptibility to conform to societal and gender expectations.

In a study conducted by Kashubeck-West et al. (2005), significant results were found in both genders related to weight concerns however men were more concerned with exercising then dieting to reach or maintain a certain weight threshold. Based on these results, disordered eating appears to be more problematic for women than men. This could be closely tied to the expectation of men appearing strong and dominant while women have been portrayed as weak and vulnerable.

Ousley, Cordero, and White (2008) concluded that men and women both experienced feeling the same level of fatness and men with a reported eating disorder felt fat more frequently. This study revealed that men with an eating disorder were more preoccupied with body tone and muscularity than dieting and that men with a lower BMI exercised more rather than restrict food intake. This seems to suggest that men are prone to focus on building muscle while females are more prone to restricting and dieting thus indicating gender conforming. My study did not reveal significance with disordered eating after viewing the media images which may indicate that building muscle and acquiring less body fat is not directly influenced by media, although there may be other factors to consider in future studies. Future studies may reveal that college males may be influenced to engage in these behaviors based on what they read, or study academically related to health or medicine. Again, the males in my study may be intellectually or academically influenced.

Mayo and George (2014) researched the relationship between the risk of developing an eating disorder, body dissatisfaction, and perceptual attractiveness in college males. They discovered a statistically significant difference in fat mass between men and women; men perceived women would prefer leaner men and more muscle mass than they do. Both findings suggested there was a discrepancy in how each gender viewed attractiveness expectations revealing that men overestimated the level of muscularity women found to be ideal. These results suggested that higher body dissatisfaction would lead to the risk of developing an eating disorder in both males and females and that females in general and males in this study were influenced by gender

expectations likely due to self-objectification. The participants in my study were not at risk for developing an eating disorder or be prone to view themselves from the lens of the other gender's perceived expectations of them, based on the results from the previous study.

According to the conceptual framework, disordered eating can be influenced by over-identifying with idealized media images to emulate these images (Fredrickson & Roberts, 1997). A study by Lindner et al. (2012) revealed that a moderate level of objectification of self and others existed among the male population which was also linked to psychological consequences such as body shame, appearance anxiety, and depressed mood. Myers and Crowther (2008) examined the relationship between self-objectification, interoceptive awareness, and disordered eating. This study revealed that having an interceptive level of awareness did not mediate against self-objectification and disordered eating and that individuals with eating disorders had difficulty identifying their own emotions and connections to feelings of hunger and satiety. These studies indicated that objectification with idealized images and internalizing these as real or true led to the development of disordered eating to attain an ideal self. Sacrificing the manner one eats to look like a media image has been linked with body shame and depression in both men and women (Fredrickson et al., 1998; Harper & Tiggemann, 2008).

In my study, viewing media images was not significantly related to depression, $F(1, 115) = .687$, $p > .05$, partial eta squared = .006. There has been a limited amount of research devoted to the psychological implications of viewing media images and how media images affect men psychologically. There was research that suggested men would

experience body dissatisfaction however not enough research was available to determine if the internalization of media images through self-evaluation developed into body shame and depression. There was also a need to understand how societal gender expectations influenced how men view themselves. It appears that the males in my study were neither influenced by the media images and/or gender and societal expectations based on the media images which may further indicate less of a propensity to develop internalizing psychological disorders such as depression. It could be that being in school may serve as a protective factor against body dissatisfaction, drive for muscularity, disordered eating, and depression.

Media image exposure increased identification with these idealized images and resulted in viewing oneself as an object, resulting in self-objectification, depression, and increased body dissatisfaction (Johnson et al., 2007 ; Lindner et al., 2012; Martin et al., 2006; Michaels et al., 2013; Olivardia et al., 2004; Parent, & Moradi, 2011; Schwartz, Grammas, Sutherland, Siffert, & Bush-King, 2010; Slevec & Tiggemann, 2010; Watkins et al., 2008). This complex process of internalization has led to chronic self-monitoring creating a false sense of self (Hallsworth et al., 2005; Michaels; Parent & Moradi, 2013; Tiggemann, & Kuring, 2001; Tiggemann, & Lynch, 2004).

In my study I was interested in understanding whether the participants would be triggered to feel depressive symptoms based on the *Self-Rating Depression Scale (SRDS)* and whether this may be related to over-exposure and identification with idealized media images. Because my study did not yield significance it can be assumed that the participants in my study are less vulnerable to self-objectification possibly because of

school being a protective factor against self-objectification based from unrealistic media images and in turn less susceptible to developing depressive symptomology.

These studies suggested that men and women were both subject to being influenced by exposure to media images. Both men and women differed in how they identified and how the identification was processed. It seemed that men, because of the expectation to be strong and powerful, denied their feelings to appear in control. This has been shown to suppress feelings and develop into depression (Lindner et al., 2012).

Based on the results from my study, there was a negative relationship between increased workout frequency and decreased depression, $F(1, 115) = 14.817$, $p < .001$. partial eta squared = .114 and a positive relationship for decreased BMI and decreased depression, $F(1, 115) = 10.264$, $p < .01$, partial eta squared = .082. Higher scores on the *SRDS* indicate more severe depression (Zung, 1965). This suggested that depression was alleviated by frequent engagement in exercise for men which may lead to decreased suppression of feelings. Further research is needed to understand how the type of exercise that was engaged in mediates the negative consequences associated with the desire to emulate idealized muscular images and the desire to increase muscularity. More research was also needed to understand whether men engage in exercise to help alleviate depression or to emulate the idealized muscular images.

My research study obtained significant results for BMI, workout frequency, and depression. Future research may be conducted to understand how these variables affect each other. It may be that men in college are more focused on academics than their physical bodies and are less concerned with body image, hence non-significant results for

my research study. Even so, the participants in my study seemed to be influenced to work out more and obtain a healthier BMI possibly to help alleviate symptoms of depression related to viewing media images. It seems that there is an increased sense of self-awareness with having a higher level of education and engaging in protective behaviors, such as exercise to mediate against depression and the internalization of a false sense of self (Hallsworth et al., 2005; Michaels, et al., 2013; Tiggemann, & Kuring, 2001; Tiggemann, & Lynch, 2004).

It is apparent that men who internalize idealized media images through the lens of self-objectification are more prone to experience increased body dissatisfaction, muscle dysmorphia, have an increased desire to build muscle to decrease BMI, and are more likely to engage in frequent exercise, and even develop depression because of self-comparisons and keeping their dissatisfied feelings inside. This further supports the idea in my study that men who are in college may be more likely to engage in fitness to protect against self-identification with images rather than to emulate those idealized images.

Since these men are more likely to conform to societal pressures they may not seek treatment for psychological issues, such as depression, body shame, and appearance anxiety (Lindner et al., 2012). Due to these attributes, men are less likely to ask for help which further perpetuates the societal stigma of men expected to be powerful (Brown & Bardoukas, 2013; Parent & Moradi, 2011). If they feel they are expected to be strong, dominant, and patriarchal, it may feel ashamed to seek the help they need. Having treatment centers on college campuses makes it easily accessible and can provide college

males the privacy to seek help if they feel ashamed to tell friends and family due to psychological and social stigma.

Limitations of the Study

One limitation of my study was that my sample ($N = 119$) was too small given the nature of this research study. Although a power analysis was conducted to determine the appropriate sample size for the proposed research study, it was still too small given previous research that has supported the effects of media saturation and the ceiling effect; a desensitization to the effects of surrounding idealized media. A research study by Ferguson et al. (2011) examined various meta-analytic studies between media exposure and body dissatisfaction for females. The analyses of this study consistently confirmed small effects between studies, ranging from $r = .08$ to .17. This is explained by media saturation or the ceiling effect in which the participants were likely over-exposed to media daily (Ferguson et al., 2011). What was further purported by Ferguson et al. (2011) was that although the direct effects of media exposure on body dissatisfaction were small, there was awareness and attention to thin ideals related to body dissatisfaction. These studies were conducted on females and drive for thinness however the ceiling effect was applicable to males although no meta-analytic studies had been conducted on male participants within my research topic.

Another limitation of this study was the geographical location. The participants were selected from a city in Southern California and were not necessarily representative of the entire United States. Although I was interested in male undergraduate college students as my participants, this population was probably not as interested in fitness-

related topics as participants engaged in fitness at a gymnasium or athletes from sport teams.

Thirdly, the participants were directed to item #4 of the DMS because there were missing dashes for answering the question. Prompting them before completing the survey packets may have been distracting after viewing the media images. This may have created a bias in the way they answered their questions because their focus shifted from the study to my mistake therefore influencing their answer to please me.

I used the stopwatch on my phone to time the viewing of the media images. Although I told the participants that I would be using an application (App) on my phone, this may have been distracting to the participants. Getting the stopwatch App to open on my phone also consumed time which may have hindered the participants' focus.

Lastly, the media images used for viewing have not been used in any other studies. Since this experiment did not conduct a pre-test to determine the potential reliability and validity it was not determined whether the characteristics differed strongly enough between them which may have affected the significance of the outcome of this study.

There were no significant findings for my proposed hypotheses of viewing media images and developing negative consequences; however, despite this, my research study did find significance between the covariates workout frequency and BMI. It seemed that most of the research had been on the drive to achieve muscularity. Previous research found an increased desire among men to exercise more and become more muscular, as represented by unrealistic media images of muscular male fitness models (Burlew &

Shurts, 2013; Daniel et al., 2014; Farquhar & Wasylkiw, 2007; Olivardia et al., 2004). Furthermore, college males were more prone to body image issues than older men due to their susceptibility of emulating and internalizing idealized images (Martin et al., 2006; Olivardia et al., 2004). More research studies may be needed to understand the connection between viewing media images of idealized male models and thinness through weight loss, dieting and BMI.

Recommendations

Perhaps having used a different theoretical approach may have been useful to understand how individuals perceived media images from a more sociological or macrocosm perspective. My study's conceptual framework focused on the objectification of media images and the internalization of these images, as understood by the self-objectification theory. The objectification theory asserts that constant exposure to other people's evaluation created worry and anxiety about one's looks. There are some similarities to the concepts of social comparison theory that suggests that individuals evaluate themselves according to others by the social feedback they receive as well as by physical appearance, age, and sex (Fox & Vendemia, 2016). Downward social comparisons involve evaluating people we think are inferior to the self to increase self-esteem. On the other hand, upward social comparisons occur when individuals identify with someone of a higher status which decreases self-worth (Fox & Vendemia, 2016). The consequences involved are diminished self-perceptions, negative emotions, depressive symptoms, lower life satisfaction, and disordered eating. This study may have shown significance if the hypotheses reflected a social comparative theoretical viewpoint

that focused on media images of social interactions rather than just idealized individual images of models.

Another recommendation is using a different setting for my convenience sample. Since I was interested in understanding the participants' viewpoints related to viewing images of male models and how they compared themselves based on the objectification and self-objectification theories, a fitness setting rather than a college campus may have been more appropriate for this study. Also, I did not limit the sexual orientation to only homosexual or to only heterosexual males; I intentionally left this open since there was already more research strictly conducted only on the homosexual population. For my study, I might have attained significant results for what I was looking for if the convenience sample was recruited from a fitness setting rather than an academic one.

Implications

Chapter 1 described the possible social implications associated with the exposure of idealized media images in men and how it contributed to psychological and social issues. When men begin to internalize the idealized media images by comparing themselves or are continuously exposed to unrealistic images of male models, compromised body image and body dissatisfaction, excessive exercise, erratic eating behaviors and shifts in mood develop (Baird & Grieve, 2006; Hargreaves & Tiggemann, 2009; Johnson et al., 2007; Serdar et al., 2011; Tyler et al., 2009). Although some of the previous research found that media images negatively affected men's well-being, the findings for my study were nonsignificant for each of the hypotheses. Still, there is a need

for social change given the research literature and the significant findings related to viewing media images and the covariates, workout frequency and BMI.

In terms of positive social change implications, Chapter 2 reviewed the literature on how media images have influenced body dissatisfaction and how the development of potential issues has arisen from the comparisons and internalization of these images. Schuster et al. (2013) discovered that psycho-educational programs like preventative treatment counseling centers in colleges were helpful in reducing psychological stressors related to abnormal exercise and eating behaviors. Furthermore, these programs decreased the rates of suicidality related to gender role expectations, societal pressures, and self-objectification based on comparisons of unrealistic body types (Johnson et al., 2007; Kashubeck-West et al., 2005; Tyler et al., 2009).

My research was meant to identify the consequences (body dissatisfaction, disordered eating, drive for muscularity, and depression) associated with viewing media images (idealized, neutral). The current findings did not suggest that media images have any negative influence on men although other research studies suggested otherwise (see Chapter 2). My study implied a relationship between viewing media images and body dissatisfaction. It was thought that exposure and internalization to male fitness models would increase body dissatisfaction. As a result, this would influence self-esteem and develop psychological consequences, such as depression. It was also suggested that viewing media images would be correlated with a greater propensity for disordered eating.

Although the hypotheses did not result in statistical significance further research in this area may advance protocol for developing appropriate preventative psycho-educational and treatment programs for males. Compared to women there is still limited research focused on men because of the gender and societal expectations that men should be strong and powerful and deny their true feelings when viewing idealized images (Lavender & Anderson, 2010; Lindner et al., 2012). There has also been limited research on the development of depression as a psychological consequence of viewing and being exposed to these types of images. The idea would be to help break the gender stereotype cycle that perpetuates the idea that men are strong and powerful, and therefore, not needing psychological treatment associated with the internalization and over-identification of idealized media images.

From a social change perspective, preventative measures and appropriate treatment modalities were imperative to understand. These preventative treatment counseling programs can be implemented in colleges and made accessible for students who feel isolated or engaged in risky social behaviors, not exercising and/or eating normally due to stressors. Similar preventative psycho-educational programs have been shown to help reduce the rates of inpatient hospitalization and suicidality (Schuster et al., 2013). This is imperative for men who feel the pressures of conforming to rigid gender role expectations.

Conclusion

This research study of $N = 119$ was developed to understand how men are affected by media images, given the limited research available for this population. The

purpose of this quantitative study was to explore the relationship between the independent variables (neutral and idealized media images) and the dependent variables (body dissatisfaction, drive for muscularity, disordered eating, and depression). These variables were examined to understand the participants' responses regarding body dissatisfaction, drive for muscularity, disordered eating, and depression. Comparisons were made of the dependent variables between those who viewed the idealized media images and those who viewed the landscape images.

It was hypothesized that there would be negative implications associated with viewing media images for men. The literature review considered the impact that media images had on men and the social repercussions for men to be strong, powerful, and dominant and women to be thin and vulnerable. Given the limited amount of research on men, finding significant results to help prove my proposed hypotheses was challenging. The lack of significant findings for this study aligns with the need to further understand how gender and social expectations play a role. Also important is understanding the type of media that men and women are exposed and vulnerable to. When there are unrealistic images discrepancies between what is real and unreal begin to become internalized creating discrepancies and subsequent negative consequences.

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Appendix A: Demographic Survey

Place an "X" next to your answer:

1. What is your gender?

___ Male
___ Female
___ Other (specify):

2. Which category below includes your age?

___ 17 or younger
___ 18-20
___ 21-29

3. Which best describes your ethnicity/race?

___ White
___ Black or African-American
___ American Indian or Alaskan Native
___ Asian
___ From multiple races
___ Mexican
___ Cuban
___ Other Spanish, Hispanic, or Latino Group
___ Other (specify):

4. Which best describes your education level?

___ Freshman
___ Sophomore

Health Question:

5. How often do you work out per week?

___ 0 times per week
___ 1-2 times per week
___ 3-4 times per week
___ 5-6 times per week
___ 7 times per week
___ Other (specify):

Appendix B: Research Randomizer

Appendix C: Q-Q Plots

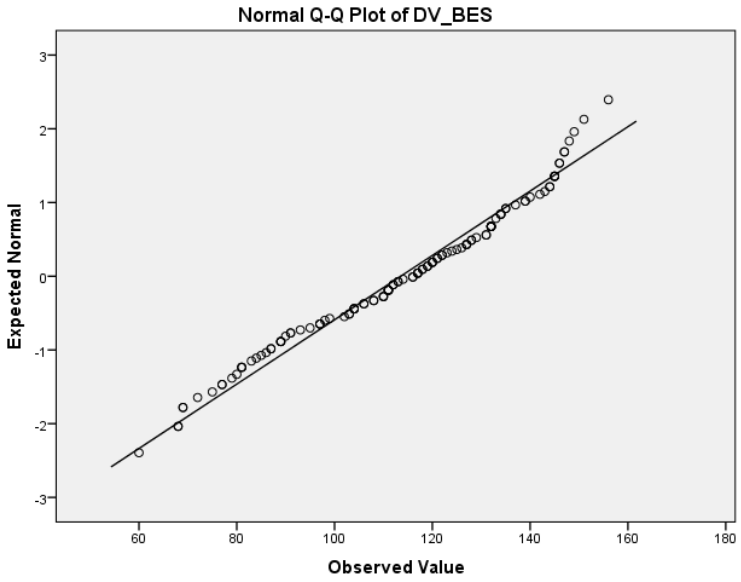

Figure C1. Body Esteem Scale.

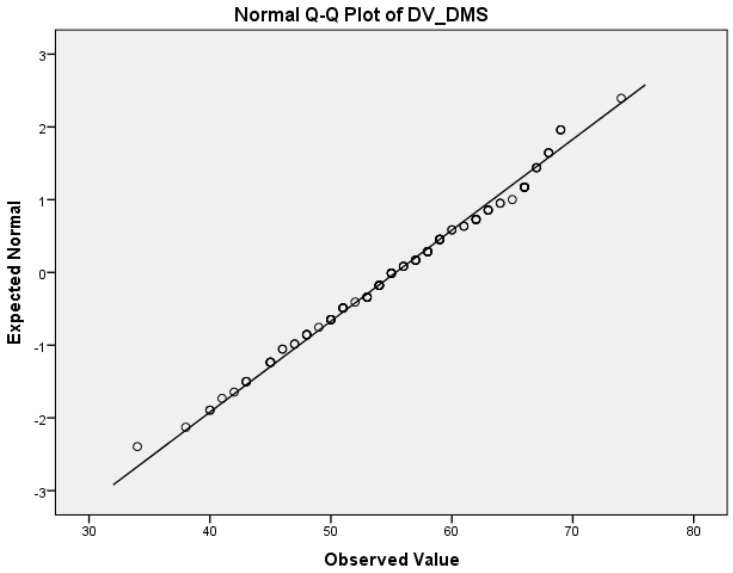

Figure C2. Drive for Muscularity Scale.

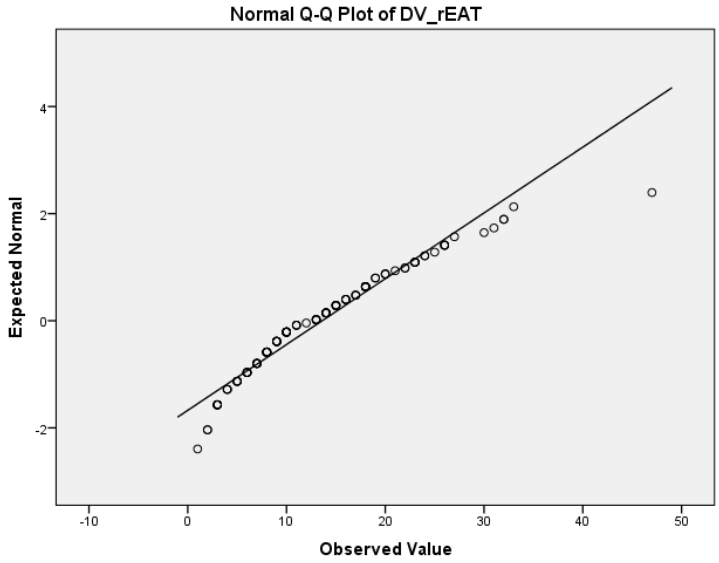

Figure C3. Eating Attitudes Test - 26.

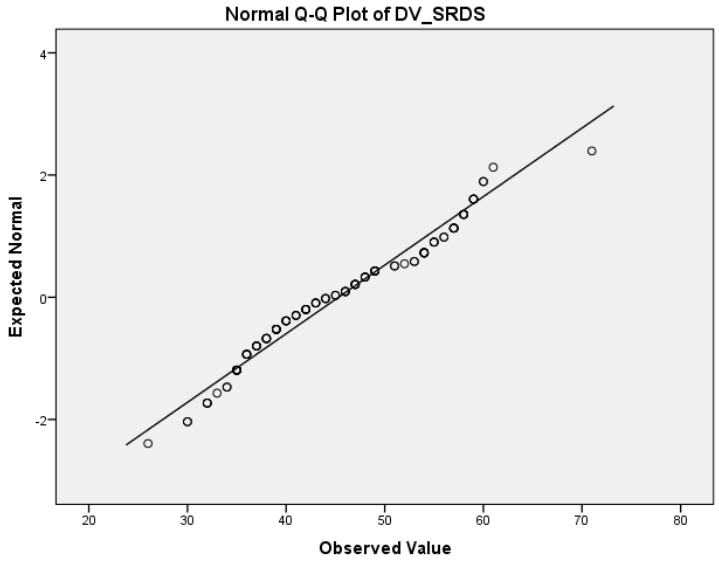

Figure C4. Self-Reporting Depression Scale.

Appendix D: Scatterplots

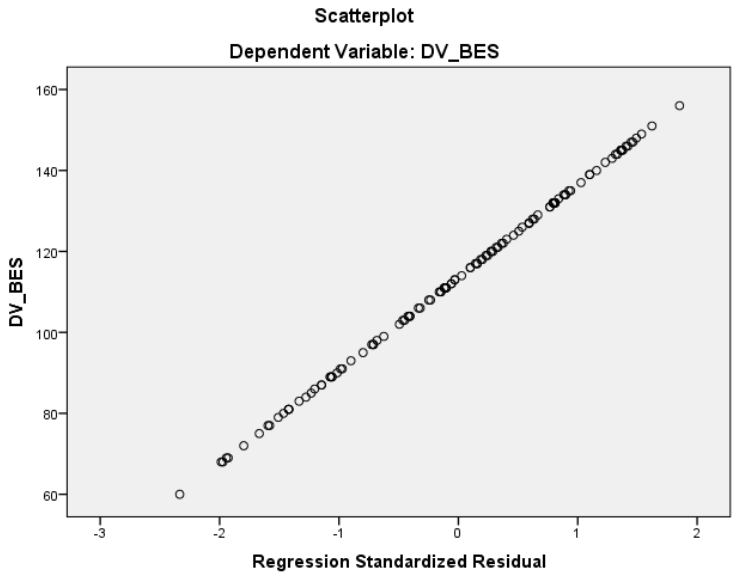

Figure D1. Body Esteem Scale.

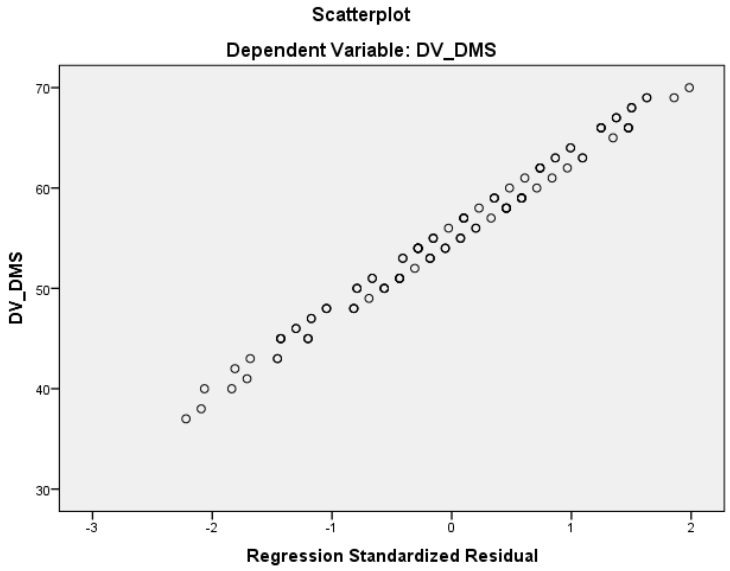

Figure D2. Drive for Muscularity Scale.

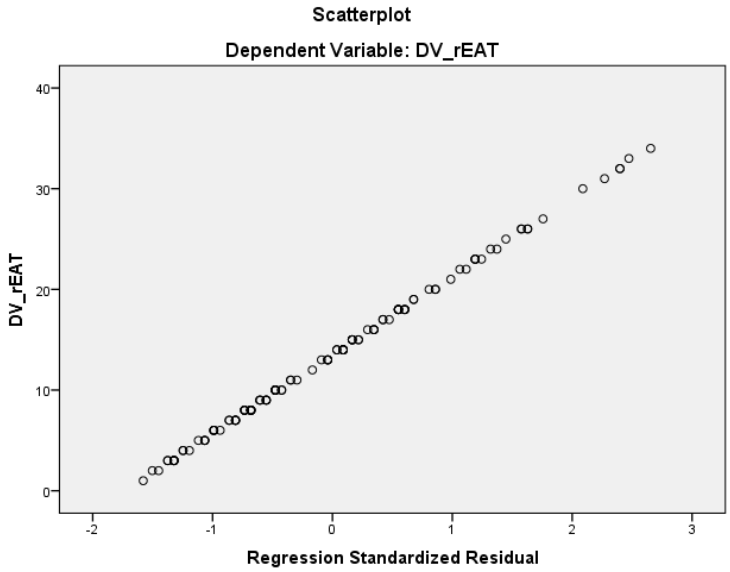

Figure D3. Eating Attitudes Test.

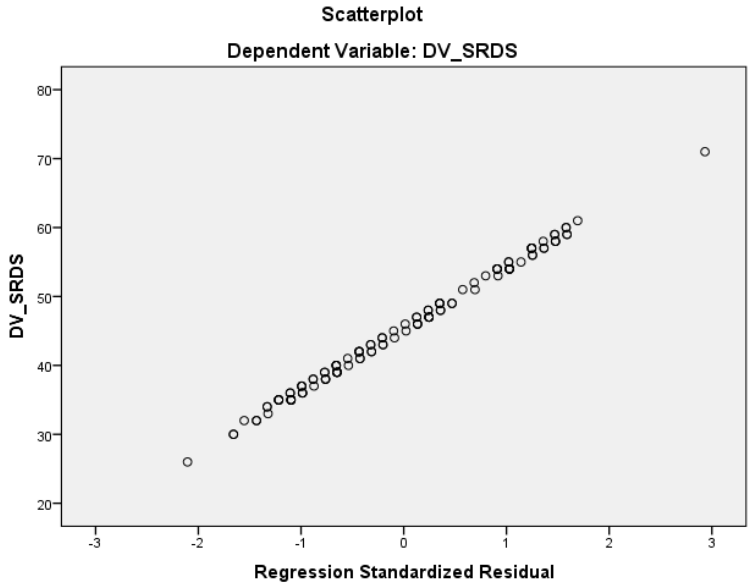

Figure D4. Self-Reporting Depression Scale.