THE MEDIA'S INFLUENCE ON COLLEGE FEMALES' BODY SATISFACTION

By

Audra L. Wagaman

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_____ Director

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_____

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By

Audra L. Wagaman

Director: Dr. Kia Asberg
Professor of Psychology
Psychology Department

Committee Members:
Dr. Winford Gordon, Psychology
Dr. Candace Boan-Lenzo, Psychology

March 2011

Western Carolina University

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ABSTRACT

THE MEDIA'S INFLUENCE ON COLLEGE FEMALES' BODY SATISFACTION

Audra L. Wagaman

Western Carolina University (March 2011)

Thesis Chair: Dr. Kia Asberg

College females have been shown to be a particularly vulnerable population to such things as eating disturbances (Schwitzer et al., 2008), body dissatisfaction (Altabe & Thompson, 1993), and depression (Abramson et. al., 1998). Further, some aspects of the media have been shown to have negative effects on females' body image (i.e., Altabe & Thompson, 1993). The present study investigated the relationships among body satisfaction, body anxiety, eating disturbance, social comparison, internalization of sociocultural attitudes, body mass index (BMI), and depression. Results (N=56) indicated that higher body satisfaction was related to less body anxiety, and that body anxiety was related positively to eating disturbances, social comparison, internalization of sociocultural attitudes, and BMI. Comparisons between females who were randomly assigned to watch images of overweight (OI group) or underweight (UI group) individuals suggested no differences on body anxiety and satisfaction at post-test, however, some interesting within group trends emerged. First, body anxiety scores for participants in the OI group decreased significantly from pre- to post-test, while there was no significant pre-post change in scores for the UI group. In addition, there was a non-significant trend indicating that body satisfaction increased for participants in both the OI

and UI groups. Implications and future directions, as well as limitations, will be discussed.

CHAPTER 1: INTRODUCTION

Body image, also referred to as body satisfaction, is a view of one's overall physical appearance (Altabe & Thompson, 1996). Having poor body image, or greater body dissatisfaction, has been shown to be a risk factor for depression (e.g., Santos, Richards, & Bleckley, 2007), eating disturbances (Tylka, 2004), and problems in academic functioning (Yanover & Thompson, 2008a; Yanover & Thompson, 2008b). For example, 50% of college females report dissatisfaction with their bodies (Monteath & McCabe, 1997), and 25-40% demonstrate problematic eating and dieting behaviors (Schwitzer et al., 2008). Moreover, college students have been shown to be an especially vulnerable population to the effects of body dissatisfaction and depression, with longitudinal studies indicating that 20 percent of college age students exhibit suicidality at some point (Abramson et. al., 1998). Further, females have been shown to have greater body dissatisfaction (Altabe & Thompson, 1993) and to engage in more social comparison relative to males (Jones, 2001). Finally, perceived physical attractiveness for females has also been shown to be associated with weight and body shape more so than with physical characteristics such as hair, facial features, etc. (Jones, 2001). Although males may evidence problems pertaining to muscularity and weight, females evidence a more problematic relationship to their bodies compared to males, and are much more likely to experience depression (Van de Velde, Bracke, & Levecque, 2010). Thus, this study will focus specifically on college females and factors that may influence body satisfaction in this vulnerable group.

In previous studies, the media has been shown to negatively impact body satisfaction in various ways. For example, several studies reveal that viewing images of thin individuals rather than average-size and plus-size individuals in several mediums (e.g., music videos, television programs, and magazines) result in a more negative body image/greater body dissatisfaction (Altabe& Thompson, 1993; Dittmar, & Howard, 2004; Tiggemann, & Slater, 2004; Want, Vicker, & Amos, 2009). In addition, long-term exposure to fashion magazines has been shown to increase body dissatisfaction, perceived pressure to be thin, dieting, and bulimic symptoms in vulnerable adolescents (Stice, Spangler, &Agras, 2001). Further, media influences have been shown to have more of an impact on individuals than parental influences (Shroff & Thompson, 2006), especially in terms of body satisfaction. Finally, internalization of the thin ideal presented in the media has been shown to have detrimental effects on body image (Dittmar & Howard, 2004). As a result, the media may have direct and indirect, but negative, effects on levels of depression, eating disturbance, and academic functioning (Bessenoff, 2006). Few studies, however, have utilized both thin and overweight images to assess the impact of exposure on participants' body satisfaction (see Groesz et al., 2002, for a review). Given that a majority of adults in the U.S. can be considered overweight (Ogden et al., 2006), our understanding of "average" might be shifting, and the thin ideal may be even more unrealistic.

Thus the purpose of this study is to explore how the media influences college females' level of body satisfaction, especially the differential impact of exposure to thin and overweight media images, respectively. By doing so, the present study aims to provide evidence in support of showing more average size individuals in the media. In

addition, this experimental study seeks to provide further support for the relationships among body dissatisfaction and eating disturbances, social comparison, and body anxiety.

CHAPTER 2: LITERATURE REVIEW

Body Image/Satisfaction

Conceptualized

Body image or body satisfaction, a view of one's overall physical appearance (Altabe & Thompson, 1996), has been conceptualized in research in many ways and has been used interchangeably with other similar terms such as body image disturbance. A study by Thompson, Altabe, Johnson, and Stormer (1994) factor analyzed the items from several commonly used body image measures and found that there was substantial overlap among the measures in the extent of image disturbance assessed. The authors suggested that researchers should be cautious when asserting that body image measures assess a distinct aspect of disturbance. Researchers also need to be careful when selecting body image measures for studies as measures that are not used as commonly could be measuring different aspects of disturbance relative to well established measures. A later study by Altabe and Thompson (1996) found that following body image schema activation (participants were asked to think about and rate various aspects of their appearance), participants experienced mood shifts. The authors asserted that this supports the idea that body image does act like a cognitive structure (i.e., a way to organize information). Overall, the concept of body image and satisfaction has an important role in the literature and in the development of adolescents and emerging adults (18 to 24-year-olds; Arnett, 2000), however, experimental investigations have been underutilized relative to survey research.

Correlates of Body Satisfaction

Body satisfaction has been found to be associated with many variables. The interaction between body satisfaction and these variables can negatively impact the psychological health of individuals. Some of these variables that often show an inverse relationship with body satisfaction include depression, problems in academic functioning, eating disturbances, participant Body Mass Index (BMI) and weight, and body size estimation and appearance concern and/or investment. Some of these predictor variables that are of particular interest to the present study will be discussed next.

Depression

Many studies have specifically studied adolescents found correlations between body satisfaction and several other variables, including depression. One study (Stice & Bearman, 2001) found that initial levels of body dissatisfaction significantly predicted later increases in participants' depressive symptoms. Another study (Santos, Richards, & Bleckley, 2007) found that while there was not a significant difference between girls' and boys' levels of depression, only girls' levels of body dissatisfaction were significantly related to their depressive symptoms, indicating that body satisfaction is an important aspect to consider for females' overall well-being.

Problems in Academic Functioning

Problems in academic functioning, including attendance, attention in class, and completing assignments, have been correlated with body image disturbance in at least two studies. In the first study, Yanover and Thompson (2008a) found a positive correlation between academic interference (i.e., poor attendance, lower grades) and body image disturbance. As body image disturbance increased, so did academic interference.

Using the same sample, Yanover and Thompson (2008b) found correlations between academic interference and several body image variables. Participants who negatively evaluated their appearance, were more concerned with their appearance, were more preoccupied with their weight, and were heavier had higher levels of academic interference. Given the design of these studies, however, the direction of these relationships is not entirely clear and causality (body image disturbance causes academic interference) cannot be inferred.

Eating Disturbances

Several studies have also found associations between body dissatisfaction and eating disturbances. For example, Thompson and Altabe (1991) found that participants who emotionally felt larger (i.e., 'I feel fat') than they intellectually believed they looked (i.e., I am a size 6) had higher levels of eating disturbance. The authors asserted that this discrepancy between feelings and thoughts regarding their body shapes represents a form of body dissatisfaction. In a further study, Altabe and Thompson (1992) found that a greater discrepancy between how college females felt and their reported ideal body shape significantly predicted bulimic symptoms. Also, two studies (Tylka, 2004; Shroff& Thompson, 2006) found that participants' body dissatisfaction was significantly correlated with general eating disturbance and eating disorder symptomatology. Further, Tylka found that both body surveillance, or constantly monitoring one's appearance, and having a friend or family member who had an eating disorder intensified the relationship between body dissatisfaction and general eating disorder symptomatology. Similarly, a study by Stice and Bearman (2001) found a positive relationship between body dissatisfaction and dieting and bulimic symptoms. In contrast, Thompson, Coovert,

Richards, Johnson, and Cattarin (1995) found that a more negative body image lead to some eating disturbances, specifically restrictive eating, but not bulimic symptomatology. Overall, perceptions and satisfaction with one's body are linked consistently to negative adjustment (e.g., problematic eating/weight management behaviors), but the type of outcome may vary depending on the measurement, population, and conceptualization of the constructs.

BMI and Weight

Participant BMI and weight have also been studied in relation to body image variables; however, the findings have been somewhat inconsistent. One study found that participant body shame, a variable closely related to body dissatisfaction, was not correlated with BMI (Aubrey, 2006). Another study also found that participants' obesity status was not related to body image satisfaction (Thompson, et al., 1995). In contrast, Stice and Bearman (2001) found that participant BMI was significantly correlated with body dissatisfaction at data collection one. However, BMI did not significantly predict later increases in body dissatisfaction. Other studies have found BMI to be significantly associated with body dissatisfaction, such that participants with higher BMIs also show higher levels of body dissatisfaction (Engeln-Maddox, 2005; Rudiger, Cash, Roehrig, & Thompson, 2007; Calogero, Herbozo, & Thompson, 2009). Finally, a study by Thompson, Shroff, Herbozo, Cafri, Rodriguez, and Rodriguez (2007) found that adolescent girls who were either overweight or at risk of becoming overweight had higher levels of body dissatisfaction compared to their average-weight peers. Overall, it appears that objective measures of body composition (i.e., BMI) are important variables

to assess and control for in relation to body dissatisfaction and body image, however, results are somewhat mixed.

Appearance investment, size estimation, and body shape discrepancies

Body satisfaction has been shown to be related also to appearance investment, size estimation, and body shape discrepancies. Rudiger and colleagues (2007) evaluated participants over a 10-day period and found that being highly evaluative and invested in appearance was associated with more negative body image levels. In addition, participants who were more perfectionistic in their self-presentation also had more negative body image levels. Another study investigated the effects of emotional (feelings: i.e., I feel fat) and rational (beliefs: i.e., I am a size 6) body size estimations on body image and found that participants' emotional estimates of body size, but not their rational estimates of body size, were significantly larger than participants' actual size (Thompson & Dolce, 1989). Further, body image was more negatively influenced by emotional compared to rational estimations. Another study found a correlation between participants' ideal body shape, as measured by Figure Rating Scales, and body dissatisfaction and weight dissatisfaction (Lew, Mann, Myers, Taylor, & Bower, 2007). Also, Altabe and Thompson (1996) studied the relationship between body shape discrepancies and both body anxiety and body dissatisfaction. Findings suggested that a greater discrepancy between participants' ratings of actual body shape and ideal body shape was associated with greater levels of body image anxiety and body dissatisfaction. Overall, it appears that being overly concerned with one's appearance and having greater discrepancies between actual and ideal body shape both have a negative impact on body image. Thus, studies should examine the interplay among these "internal" predictors of

body dissatisfaction while also taking into consideration other external influences, such as the media.

The Media and Body Satisfaction

Size of individuals in the media

The size of individuals featured in the media has been shown to have a considerable impact on viewers' body satisfaction. To date, studies that have looked specifically at the influence of the size of individuals in the media on participants' body satisfaction have revealed mixed results. For example, two of these studies found no relationship between participants' body satisfaction and exposure to media images depicting thin and attractive models (Cusumano & Thompson, 1997; Gurari, Hetts, & Strube, 2006). In his meta-analysis, Groesz et al. (2002) found that participants who were exposed to media images depicting thin women were significantly less satisfied with their bodies compared to participants who were exposed to average-weight models and overweight models. Another meta-analysis by Want (2009) found an average effect size (-.38) from the included studies such that exposure to media portraying the thin and attractive ideal was associated with less satisfaction with appearance.

For example, Cattarin, Thompson, Thomas, and Williams (2000) explored the effects of two videos on participants' body satisfaction. One video portrayed women who were thin and attractive and the other portrayed women who did not fit this thin and attractive ideal (control video). Findings suggested that participants who saw the video of thin and attractive women were significantly more dissatisfied with their appearance following the video. In contrast, participants who saw the control video were

significantly more satisfied with their appearance following the video. Moreover, Tiggemann and McGill (2004) exposed women to various advertisements and measured their body satisfaction before and after exposure. Findings indicated that exposure to the thin-ideal advertisements lead to less body satisfaction. In addition, participants' body satisfaction significantly decreased after exposure to advertisements regardless of whether they depicted full body images of women or only body parts. Finally, a study by Dittmar, Halliwell, and Ive (2006) explored the effects of exposure to images of different size dolls on five to eight year-old girls' body satisfaction. In this study, exposure to the extremely small Barbie doll lead to increased levels of body dissatisfaction, whereas exposure to the more average sized Emme doll lead to no significant changes in levels of body dissatisfaction. However, this trend nearly disappeared for girls around seven-years-old. Dittmar and colleagues (2006) suggested that this is due to girls having internalized the thin-ideal message by this young age. Overall, findings point to the fact that dissatisfaction with one's body may be affected by exposure to media influences beginning at a very young age. It also reiterates just how important it is to gain a better understanding of what variables impact body image so appropriate measures and/or interventions can be taken to ameliorate potentially negative outcomes. Thus, by examining these relationships in a variety of populations, including college students, we may gain a better understanding of the underlying mechanisms of this problem with the ultimate goal of applying this knowledge to individuals of all ages.

Additional studies have investigated the effects of the media on body satisfaction using experimental and control groups. For example, Tiggemann and Slater (2004) exposed participants to either an appearance-focused video or a nonappearance video;

these videos were compiled of various clips from music television. Participants who were exposed to the appearance-focused video were significantly less satisfied with their bodies compared to those exposed to the nonappearance video. In addition, the former participants felt significantly less physically attractive and fatter following exposure to the video. Similarly, Bessenoff (2006) exposed participants to either advertisements portraying women who fit the thin-ideal or neutral advertisements and found that exposure to the thin-ideal advertisements was associated with greater levels of body dissatisfaction as measured by a survey, which included the Pictorial Body Image Scale. Exposure to the neutral advertisements had no effect on participants' body dissatisfaction. A similar study (Clay, Vignoles, &Dittmar, 2005) investigated the effects of exposure to either advertisements featuring models or advertisements featuring neutral images (i.e., Christmas stocking) on participants' body satisfaction. In this study, participants who viewed advertisements of ultra-thin models did not differ in levels of body satisfaction from those who viewed advertisements of average-size models. However, there was a significant difference in body satisfaction between participants who viewed advertisements with models and those who viewed advertisements with neutral images. This difference was such that those who were exposed to models were significantly more dissatisfied with their bodies compared to those who were exposed to neutral images. Similarly, a study by Birkeland, Thompson, Herbozo, Roehrig, Cafri, and van den Berg (2005) showed participants 5-minute slideshows made up of advertisements with attractive models, household products, or appearance-related products. They found no difference in body satisfaction between the two product conditions (household versus appearance), however, there was a significant difference in body satisfaction between

advertisements with models and advertisements for products, such that body dissatisfaction increased for participants who were exposed to the advertisements with models. Overall, these findings indicate that exposure to models in advertisements leads to more body dissatisfaction, while exposure to neutral stimuli does not.

Moreover, Richins (1991) also found that women who were exposed to images of advertisements with models experienced much greater body dissatisfaction compared to women exposed to images of advertisements with no models. However, he extended the study by having participants rate their own level of attractiveness and images of "average" college students on attractiveness. Results suggested that less attractive ratings of the "average" college students were given by women who were exposed to the model advertisements compared to those who were exposed to the advertisements with no models. However, there was no significant difference in ratings of own attractiveness between the groups. Overall, exposure to media images that show models who fit into the thin and attractive ideal have a more detrimental effect on body satisfaction compared to media images with no models, neutral images, or advertisements that are not focused on appearance.

Exposure time to media

Body dissatisfaction has also been linked to exposure time and amount of comparison to media. However, research has resulted in inconsistent findings regarding exposure time. For example, magazine pictures reportedly influenced girls' ideas about the perfect body shape as well as their own weight and shape perceptions (Field, Cheung, Wolf, Herzog, Gortmaker, &Colditz (1999). In addition, 47 percent of these participants also reportedly wanted to lose weight as a result of looking at magazine pictures. Field

and colleagues (1999) noted that the above relationships were much more prominent for participants who spent more time reading magazines. Another study (Want, Vickers, & Amos, 2009) found that while there was not a significant association between amount of exposure and satisfaction with appearance, the trend was such that as number of images viewed increased, satisfaction with appearance also increased. In contrast, a meta-analysis by Groesz, Levine, and Murnen (2002) found that a greater number of media stimuli had less of an effect on participants' body satisfaction, while Stice, Spangler, and Agras (2001) questioned how long the negative effects of exposure to media on body satisfaction last, as they found no relationships between long-term exposure to a fashion magazine and body dissatisfaction. Inconsistent results in the literature pertaining to exposure time suggest that studies must examine carefully the methodology when assessing the media's impact.

Importance of media influences on body dissatisfaction

Some studies have investigated the role of the three aspects of media influence: internalization of media messages, awareness of the thin ideal portrayed in the media, and perceived pressure from such media messages. For example, Stice and Bearman (2001) studied the relationships between body satisfaction and sociocultural factors in adolescent girls. They found that girls who internalized the thin ideal to a greater extent also had higher levels of body dissatisfaction. Another study found that between internalization and simple awareness of sociocultural attitudes regarding the thin and attractive ideal, the former contributes to body dissatisfaction more compared to the latter (Stormer & Thompson, 1996). Similarly, Cusumano and Thompson (2001) noted that while internalization, awareness, and pressure were all significantly correlated with body

dissatisfaction, level of internalization accounted for the most variance in this relationship. Further, another study found that participants who had high internalization scores experienced significantly less appearance dissatisfaction after being exposed to images that did not fit the thin and attractive ideal (Cattarin, Thompson, Thomas, & Williams, 2000). However, participants who had high internalization scores experienced significantly more appearance dissatisfaction after being exposed to images that did fit the thin and attractive ideal, suggesting that what is shown may affect the resulting thoughts and/or feelings.

In addition to the potential for negatively impacting body image and satisfaction, exposure to certain types of media has also been linked to other variables such as depression, anxiety, negative mood, self-esteem, and even short-term eating habits. Cattarin and colleagues (2000) assessed participants' levels of depression and anxiety before and after exposure to media stimuli and found that exposure to a tape depicting thin and attractive women lead to an increase in participants' level of depression following exposure. In contrast, the participants in this study who were exposed to the tape depicting women who did not fit this thin and attractive ideal experienced a decrease in depression following exposure. The same trend was found for levels of anxiety. Anxiety levels increased from before to after exposure for those who saw the thin and attractive tape but decreased for those who saw the other tape. A similar study (Tiggemann& McGill, 2004) found that women who were exposed to images with females who represented the thin ideal experienced a significant increase in negative mood. In another study participants who viewed images of models reported a significantly lower level of self-esteem compared to those who viewed images of neutral

objects (Clay, Vignoles, &Dittmar, 2005). Finally, a study by Gurari, Hetts, and Strube (2006) showed participants advertisements that either had thin and attractive models or no models. Following this exposure, they asked participants to wait in another room for a few minutes until the experimenter came back for them. There was some junk food and some healthy food on a table in the waiting room and before the experimenter left he/she told the participants to help themselves to the food. They determined how much of each type of food was eaten by the participants by weighing the food before and after each participant was in the room. Participants who had seen the advertisements with the thin and attractive models ate significantly less junk food compared to those who had seen the advertisements with no models. There was no difference in the amount of healthy food eaten by participants based on which images they had seen. Collectively, these findings suggest that the media (i.e., exposure to ideals) can have an impact on a variety of negative outcomes, and that the individual's perception of him or herself interact with the images they view.

To date, however, few studies have compared the degree of influence of peers, parents, and friends in regards to body satisfaction. One study found that friends were important in helping to make sense of media messages (Krayer & Iphofen, 2007). Another study found that peer and media, but not parent influences, were associated with both comparison and internalization (Shroff& Thompson, 2006).

Social Comparison

Social comparison, the inclination to judge one's own characteristics or abilities against others', has been found to be an important variable when considering the relationship between the media and body dissatisfaction. This is especially important to

consider when studying college females, as Richins (1991) found that this population does compare themselves to models in the media. Krayer, Ingledew, and Iphofen (2007) found that social comparison in adolescence is often linked to uncertainty. They also discovered that adolescents made negative comparisons more often when they had low self-confidence and/or were in a more negative mood. In addition, social comparison, especially comparison related to size and weight, has been found to be associated with body dissatisfaction (Stormer& Thompson, 1996), such that participants who engaged in more social comparison were less satisfied with their bodies (Jones, 2001; Richins, 1991). More specifically, Jones found that body shape comparisons lead to greater levels of body dissatisfaction. Further, Cafri, Yamamiya, Brannick, and Thompson (2005) found that perceived pressure to be thin was significantly associated with body image, such that as perceived pressure increased, body image satisfaction decreased.

In addition, to examine social comparison, Engeln-Maddox (2005) instructed college females to generate comparisons to advertisements they were shown as part of the experiment. These advertisements depicted females who fit into the thin and attractive ideal. Findings suggested that compared to participants who were not instructed to make these comparisons, those who were instructed to do so not only had significantly higher levels of internalization, but they were also significantly more dissatisfied with their bodies. Another study found that the relationships among social feedback, body image, and eating disturbance were mediated by appearance-based comparisons (Thompson, Coovert, &Stormer, 1999). Finally, Shorter, Brown, Quinton, and Hinton (2008) asked participants to select a celebrity who was roughly their same age and whom they admired with whom they could compare themselves. Next, participants indicated what they

believed best represented their personal body size and shape, the chosen celebrity's body size and shape, and their ideal body size and shape by circling the appropriate female figure out of many figures that ranged from small to large. Consistent with the literature, findings indicated that participants' who had greater discrepancies between their actual body size and shape and the chosen celebrity's body size and shape also had greater levels of disordered eating compared to participants' who had smaller discrepancy scores.

Furthermore, participant attributes such as age, distress level, self-esteem, etc. are also important to take into consideration when drawing conclusions from experiments on body image and disturbance. For example, one study found that among adolescent girls, self-esteem and body satisfaction were significantly lower for older participants compared to younger participants (Clay, Vignoles, & Dittmar, 2005). Further, a meta-analysis (Groesz, Levine, &Murnen, 2002) found that younger participants were more negatively affected by being exposed to media stimuli depicting individuals who fit the thin and attractive ideal compared to those who were 19 and over. In addition, this study found that individuals who already had high levels of body image disturbance were also more negatively affected by exposure to thin and attractive media images compared to those who did not have significant body image disturbance. Another study found similar results. Specifically, participants who had high levels of body image disturbance experienced greater levels of depression, weight dissatisfaction, and overall appearance dissatisfaction following activation of the body image schema compared to participants who did not have significant levels of body image disturbance (Altabe & Thompson, 1996). Additionally, one study found that participants who had greater body dissatisfaction (characterized by greater discrepancies between actual and ideal body

size/shapes) experienced more depressive thoughts, lower self-esteem, and engaged in more self-criticism (Bessenoff, 2006). In addition, Bessenoff (2006) found that these women were much more likely to compare themselves to others than women without such high levels of body dissatisfaction. Further, a 2001 study found that vulnerable adolescents, or those who felt significant pressure to be thin and were more dissatisfied with their bodies initially, experienced significantly greater negative affect compared to non-vulnerable adolescents following exposure to a fashion magazine depicting thin and attractive women (Stice, Spangler, &Agras, 2001). Moreover, adolescents in this study who did not have sufficient social support were significantly less satisfied with their bodies, dieted more, and experienced more bulimic symptoms following the exposure to the fashion magazine. Likewise, another study found that after participants were exposed to sexually objectifying media, those with lower self-esteem experienced decreased trait self-objectification (Aubrey, 2006). Overall, the results of the above studies contribute significant evidence suggesting that exposure to media depicting idealized individuals has a negative effect on more than just body satisfaction. It seems that this effect is coming into play at younger ages, and is intensified for those who already experience some type of negative symptom (i.e., body dissatisfaction, low self-esteem).

Several studies have also used instruction or intervention manipulations as part of their experiments. One study (Tiggemann & McGill, 2004) utilized three different instructional sets. One set asked participants to compare themselves to the models in the images, another asked participants to focus on the appearance of the models in the images, and the third simply asked participants to view the images as they would if they were at home. They found that while the comparison instructions did elicit the greatest

amount of comparison, there was no significant difference between the three groups in negative mood or body dissatisfaction following exposure. In a study by Sperry, Thompson, Roehrig, and Vandello (2005) participants read a psychoeducational vignette that highlighted the fact that women should not compare themselves to models in the media because they have been artificially enhanced as well as the fact that weight and shape are largely due to genetics, which cannot be altered. Sperry and colleagues (2005) found that after reading this vignette, participants became more satisfied with their appearance. Another study (Want, Vickers, & Amos, 2009) gave some participants a *weight and shape intervention,* while others received an intervention that focused on non-weight-related concerns, and still others received no intervention. Next, participants were exposed to a television program that had thin and attractive models. Results suggested that participants who had received the *weight and shape intervention* were significantly more appearance satisfied compared to those who received no intervention. In addition, the *weight and shape intervention* was more effective in combating the negative effects of the exposure to the television program than was the intervention focused on non-weight-related concerns. In a separate experimental study, Roehrig, Thompson, and Cafri (2008) compared the effects of different messages on eating pathology. They exposed participants to a pro-dieting message, an anti-dieting message, or no message and found that the pro-dieting message was associated with the greatest level of perceived pressure to lose weight. In addition, the pro-dieting message induced greater dieting intentions, but also significantly increased participants' healthy eating habits. Finally, Lew, Mann, Myers, Taylor, and Bower (2007) suggest that one way to combat the negative effects of media exposure is for women to compare themselves to the models

in the media in writing on dimensions that are not related to appearance, such as intelligence and sense of humor.

Overall, body dissatisfaction and related problems continue to be a significant issue for today's emerging adults, especially for females. Also, the media's role in contributing to young women's view to themselves is not without controversy, thus the interplay among type of media, intrapersonal variables (BMI and depression) and body dissatisfaction warrants further study.

Purpose of Study

The present study focused on the relationships among media exposure (i.e., images of thin and overweight individuals), body satisfaction, and eating behaviors in female college students. The selection of college students has both a theoretical and practical basis. For example, prevalence rates of problematic eating behaviors and body dissatisfaction are particularly high among college students (Abramson et. al., 1998). Additionally, college students have been shown to be especially vulnerable to depression (Abramson, Alloy, Hogan, Whitehouse, Cornette, Akhavan, & Chiara, 1998), which has been shown to be related to body dissatisfaction (i.e., Stice & Bearman, 2001), thus further research is needed so as to understand the factors that contribute to body dissatisfaction. In addition, females (relative to males) have been shown to have lower self-esteem, to focus on weight-related body parts (Fisher, Dunn, & Thompson, 2002), and to distort perception of various body sites, such that they are more likely to overestimate rather than underestimate these areas (Thompson & Thompson, 1986). Other studies have found that females engage in more social comparisons (Jones, 2001),

were more dissatisfied with their bodies (Altabe & Thompson, 1993), and had higher levels of eating disturbance (McDonald & Thompson, 1992) compared to males. Additionally, females dieted significantly more than males (Santos, Richards, & Bleckley, 2007). While most studies conducted on related topics have found similar results, there is still the question of whether or not media truly has such a negative impact on body image or whether such body dissatisfaction is due to other factors. In addition, there have been inconsistent findings regarding the relationship between BMI and body image, possibly due to moderating variables that may ameliorate the relationship (e.g., depression). Finally, despite the large number of studies that have examined body image among emerging adults, there is a need for experimental studies that carefully control for confounding variables. Thus, the purpose of this study was to explore how the media influences college females' level of body satisfaction, especially the differential impact of exposure to thin, average, and overweight media images, respectively. Other variables such as college females' BMI and depression were assessed and used as covariates to ensure that any relationship found truly represents a relationship between media influences and body satisfaction.

In summary, having a poor body image has been related to several negative outcomes, including depression, eating pathology, and problems in academic functioning. It is clear that it is important to focus this study on emerging adults in college, as they are particularly prone to experiencing body dissatisfaction and depression. Also, college students endorse alarming rates of body image disturbance, but females are more prone to experiencing eating pathology and body dissatisfaction relative to males, as well as showing a more robust relationship between these disturbances and depressive

symptoms. Findings of this experimental study may help us understand whether the media does, in fact, influence body satisfaction and may also aid in the development of interventions to combat this negative relationship.

Hypotheses

The first hypothesis of the present study is that body satisfaction will be negatively correlated with the following variables: body anxiety, eating disturbances, social comparison, internalization of sociocultural attitudes, and depression. Specifically, as these variables increase, body satisfaction will decrease and vice versa. The second hypothesis is that body anxiety will be positively correlated with eating disturbances, social comparison, internalization of sociocultural attitudes, and depression. Also, given that the majority of findings in the literature support the idea that exposure to thin individuals generally has a negative impact on body satisfaction (i.e., Cattarin, Thompson, Thomas, & Williams, 2000), the third hypothesis of the present study is that body satisfaction will decrease and body anxiety will increase for those who view images of underweight individuals. The studies that included average-size individuals in their exposure groups resulted in discrepant findings. While there are not many studies that included overweight individuals in their exposure groups, the findings from the ones that did were in general agreement that this type of exposure *increases* participants' body satisfaction. Therefore, the fourth hypothesis is that body satisfaction will increase and body anxiety will decrease for those who view images of overweight individuals. Because there are discrepant findings in the literature regarding the relationship between

participant BMI and body satisfaction, we did not make a prediction about this specific relationship; however, BMI was used as a covariate in the aforementioned analyses.

CHAPTER 3: METHODS

Participants

Participants included females from a southeastern university. They were recruited from Psychology courses and some were offered extra credit for participating. Participants had to be at least 18 years of age to participate. Overall, there were 56 participants whose ages ranged from 18 to 29-years with an average age of 19.24-years. Participants were primarily Caucasian, (n=36; 64.3%), with 7 (12.5%) African Americans, 2 (3.6%) Native Americans, 2 (3.6%) Hispanics/Latinas, and 2 (3.6%) Mixed Race. Seven (12.5%) participants did not identify their age or ethnicity.

Group 1 (underweight images) consisted of 30 participants whose ages ranged from 18 to 22-years with an average age of 19.24 years. Again, they were mostly Caucasian, (24, 80%), with 3 (10%) African Americans, and 2 (6.7%) Hispanics/Latinas. One (3.3%) participant did not identify her age or ethnicity.

Group 2 (overweight images) consisted of 26 participants whose ages ranged from 18 to 29-years with an average age of 19.25 years. This group was also mostly Caucasian, (12, 46.2/60%), with 4 (15.4/20%) African Americans, 2 (7.7/10%) Native Americans, and 2 (7.7/10%) Mixed Race. Six (23.1%) participants in Group 2 did not identify their age or ethnicity.

Note that the second percentage reported for participants in group 2 is corrected to represent the ethnic breakdown among those who did report this information. Given the ethnic breakdown of the student population, it is unlikely that the two groups differed

significantly on this demographic variable. The two groups did not differ significantly on any of the other study variables.

Measures

The measures that were completed by participants included the *Eating Attitudes Test* (EAT-26, Garner, Olmsted, Bohr, &Garfinkel, 1982), the *Sociocultural Attitudes Towards Appearance Scale – 3* (SATAQ-3, Thompson, van den Berg, Roehrig, Guarda, &Heinberg, 2003), the *Physical Appearance Comparison Scale* (PACS, Thompson, Heinberg, &Tantleff, 1991), the *Physical Appearance State and Trait Anxiety Scale* (PASTAS, Reed, Thompson, Brannick, & Sacco, 1991), an overall body dissatisfaction Visual Analogue Scales (VAS, Wewers, & Lowe, 1990), and the *Zung Self-Rating Depression Scale* **(**Zung, 1965**)**. Finally, a demographics questionnaire asked participants about their height, weight, age, race, and year in school, and this form was administered at the end of the study in order to lower the risk of influencing reactions to images. Descriptions and psychometric properties of the measures are provided below.

Eating Disturbances

The EAT-26 is a 26-item measure that was created from the items on the original scale, the EAT-40 **(**Garner, Olmsted, Bohr, &Garfinkel, 1982**)**. Participants respond to items on a 6-point Likert-type scale that ranges from *always to never*. The range of scores for this measure is from 0-78, with a score above 20 indicating potential problems in eating habits. Through factor analysis, Garner, Olmsted, Bohr, and Garfinkel (1982) found that 26 of the items loaded on three specific factors. The items that make up the first factor, *dieting*, measure an individual's preoccupation with thinness and avoidance

of foods that could cause weight gain. The next factor, *bulimia and food preoccupation*, consist of items that measure thoughts that could be indicative of bulimia as well as the extent to which individuals think about food. The final factor, *oral control*, measures perceived pressure to gain weight and personal control of eating. The EAT-26 was highly correlated with the EAT-40 (*a=0.98*); additionally, the three factors correlated highly with the overall EAT-26 scale (*a=0.93, 0.64, and 0.60*, respectively). Finally, the internal consistency of the EAT-26 was high (*a=0.90*) suggesting that the new shorter version of the measure is psychometrically sound.

Awareness and Internalization

The SATAQ-3 is a 30-item measure that assesses the extent of awareness and internalization of the thin and attractive societal ideal **(**Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2003**)**. It is measured on a 5-point Likert-type scale with responses ranging from *definitely disagree* to *definitely agree*. Scores on this measure range from 30-150, with higher scores indicating greater awareness and/or internalization of society's attractive ideal. The scale can be used as a whole or one or more subscales from it can be used separately. The four subscales that make up this measure are: Internalization-General, Information, Pressures, and Internalization-Athlete. Two studies by Thompson, van den Berg, Roehrig, Guarda, and Heinberg (2004) found the measure and its subscales to be both reliable and valid. Cronbach's alpha levels ranged from 0.89-0.96 in both studies for the four subscales and the overall measure. Additionally, the measure had good convergent validity in both studies with the Body Dissatisfaction (correlations for the 2 studies = .54 and .57, respectively, $p<.01$) and Drive for Thinness

(correlations for the 2 studies = .32 and .49, respectively, $p<.01$) subscales of the Eating Disorders Inventory.

Social Comparison

The PACS is a 5-item measure that assesses the extent to which participants compare themselves with others. It is measured on a 5-point Likert-type scale with responses ranging from *never* to *always*. The range of scores for this measure is from 5-25, with higher scores indicating more frequent comparison of physical appearance to others. In a pilot test with 80 females, Thompson, Heinberg, and Tantleff, (1991) found that the measure had good overall reliability (a=. 78) and good test-retest reliability (a=. 72). They also found that the measure was sufficiently correlated with other related variables including body dissatisfaction, eating disturbances, and self-esteem.

Body Anxiety

The PASTAS is a 16-item measure that assesses the amount of anxiety participants currently feel about various parts of their bodies. It is measured on a 5-point Likert-type scale with responses ranging from *not at all* to *exceptionally so*. The range of scores for this measure is from 0-64, with higher scores indicating greater levels of anxiety about one's physical features. A study by Reed, Thompson, Brannick, and Sacco (1991) found that the PASTAS is a very reliable measure, with alpha levels ranging from .82-.92 and a test-retest reliability coefficient of .87. They also found that the measure is valid, as it correlated highly with already established measures of body image disturbance, such as the Eating Disorder Inventory – Body Dissatisfaction subscale.

Body Dissatisfaction

The VAS is measured on a 10-centimeter line and participants' scores are recorded on a 100-point scale (measured in millimeters). A pilot study by Heinberg and Thompson (1995) assessed the reliability of a VAS-weight dissatisfaction and a VAS-overall appearance dissatisfaction by correlating these two measures with the Eating Disorder Inventory – Body Dissatisfaction subscale. They found that the correlations were $r=.66$ and $r=.76$, $p<.01$ for the weight dissatisfaction and overall appearance dissatisfaction scales, respectively. Because the two scales shared 65% of variance, they were combined into a single VAS, which they called VAS-body satisfaction. They suggest that these types of scales measure "state indices of disturbance, sensitive to immediate changes in status" (Heinberg, & Thompson, p. 336). For my study, I will be using the VAS-body satisfaction scale to be measured in millimeters. Participants will indicate their current level of satisfaction with their bodies by putting a mark somewhere on the 12.7-centimeter scale (the scale was meant to be 10 centimeters long, but due to a printing error it was 12.7; therefore the score ranged from 0-127) that will range from completely unsatisfied on the left to completely satisfied on the right.

Depression

The *Zung Self-Rating Depression Scale* is a 20-item measure that assesses an individuals' current level of depression. It is measured on a 4-point Likert-type scale with responses ranging from *a little of the time* to *most of the time*. Scores range from 20-80, with most depressed individuals scoring in the 50-69 range (Zung, 1965). A study by Tanaka-Matsumi and Kameoka (1986) found that the Zung Self-Rating Depression Scale is a very reliable measure (a=.81). They also found that the measure is valid as it

correlated highly with other measures of depression, such as the Beck Depression Inventory (*a*=.68). Because this measure correlates highly with the Beck Depression Inventory and is free for use, it was used in this study.

Procedure

Task Development

Approximately 100 pictures were selected from the Internet (Google) and were rated by approximately 50 undergraduate students. Students were recruited from the Psychology 150 pool. Images were rated on two categories, iconic ratings and valence ratings. The categories for the iconic ratings were: *underweight* (smaller than the typical American woman), *overweight* (larger than the typical American woman), and *neither*. Valence ratings were on a 5-point Likert-type scale ranging from *very negative* to *very positive*. Based on these sorts, the pictures that best represented the two categories (underweight and overweight) and had neutral valence ratings (mean between 2.9-4.1) were used in the study.

Experimental Task Procedure

Participants completed this study in a classroom on campus. They were informed about the nature of the study (including risks and benefits), their right to withdraw at any time without penalty, and the confidential nature of their responses. They then signed an informed consent form. Next, participants were asked to complete the first portion of the survey packet, which included the EAT-26, the SATAQ, the PACS, the PASTAS, and a VAS. Then they completed an Affective Misattribution Procedure (AMP), which used the full body images of females (21 pictures per group) as primes and a random

formation of grey squares as the images being rated. The rationale behind utilizing this procedure was to distract participants from focusing solely on the images, as they had just completed questionnaires focusing on their thoughts and feelings regarding their bodies. Participants were randomly assigned to one of two groups. One group was exposed to media images of underweight individuals (UG) and the second group was exposed to media images of overweight individuals (OG). After completing the AMP, participants completed the second portion of the survey packet, which included the PASTAS, the same VAS, and a demographics form. After completing the study, the participants were debriefed and given contact information for the experimenter and faculty supervisor in case they had further questions or wanted to know the results of the study. Contact information for the Counseling Center on campus was also provided in the debriefing form in the event that participants experienced more lasting distress or wished to talk to a professional about body image, problematic eating, or any other aspects of their psychological health.

CHAPTER 4: RESULTS

First, means and standard deviations on study variables were calculated for each group using SPSS version 17 (see table 1). Next, t-tests were run to ensure that the groups did not differ significantly on the study variables. Results of these tests indicated that there were no significant group differences on any of the (pre) variables (see table 1).

Table 1: *Means, Standard Deviations, and t-tests*

Variable	***Group***	***Mean***	***SD***	***t***	***Sig.***
BMI	Underweight	26.39	6.87	-.39	.69
	Overweight	25.73	5.31		
VAS-pre	Underweight	67.2	30.63	.44	.66
	Overweight	71.38	39.73		
EAT	Underweight	8.37	7.70	-.64	.52
	Overweight	7.15	6.17		
SATAQ	Underweight	93.83	21.93	-1.60	.12
	Overweight	84.42	21.99		
PASTAS	Underweight	31.50	9.64	-.54	.59
	Overweight	30.00	11.12		
PACS	Underweight	14.93	4.34	-1.26	.21
	Overweight	13.38	4.83		
Zung	Underweight	38.6	6.31	-1.48	.14
	Overweight	36.27	5.30		

To test hypotheses 1 and 2, a correlation matrix was examined to assess any bivariate relationships between the study variables, specifically correlations between body satisfaction and body anxiety and BMI, eating disturbances, social comparison, internalization of sociocultural attitudes, and depression (see table 2). Results regarding hypothesis 1 indicated that body satisfaction (VAS) did not correlate significantly with eating disturbances (EAT), social comparison (PACS), internalization (SATAQ), or depression (Zung). However, body satisfaction did correlate significantly with body anxiety (r = -.55 at the .01 alpha level). Specifically, decreased body satisfaction was linked to greater body anxiety. Results regarding hypothesis 2 indicated that body anxiety (PASTAS) did correlate significantly with BMI, eating disturbances, social comparison, and internalization. Specifically, as these variables increased, body anxiety also increased. Overall, the hypotheses regarding bivariate relationships were partially supported.

Table 2: *Correlations among Study Variables*

	1	**2**	**3**	**4**	**5**	**6**	**7**
1. BMI	--						
2. VAS-pre	-.56**	--					
3. EAT	.15	-.18	--				
4. SATAQ	.17	-.19	.26*	--			
5. PASTAS-pre	.71**	-.55**	.32*	.27*	--		
6. PACS	.09	-.13	.35**	.60**	.30*	--	
7. Zung	.04	.07	.07	-.03	.05	-.21	--

***p<.01; *p<.05*

To test hypotheses 3 and 4, two separate repeated measures ANCOVAs were run (see tables 3 and 4). A group (2) by time (2) interaction for body satisfaction (VAS) was investigated first using BMI as a covariate. Results revealed no significant interaction effect as indicated by f(1) = .44, p = .51, effect size = .008, i.e., there was no significant

difference between groups in their post-exposure scores on the VAS. However, based on the graph, there seemed to be trends that were further investigated (see graph 1). Additionally, a group by time interaction for body anxiety (PASTAS) was investigated using BMI as a covariate. Again, results revealed no significant interaction effect as indicated by f(1) = .35, p = .56, effect size = .007, i.e., groups (overweight vs. underweight) were not significantly different on the body anxiety measure at time 2. Similar to the graph for the VAS, the graph for the PASTAS indicated a possible within group trend (see graph 2). Further, BMI was not a significant covariate in either of the above models. These trends are discussed further below.

Figure 1: Time X Group Interaction (VAS)

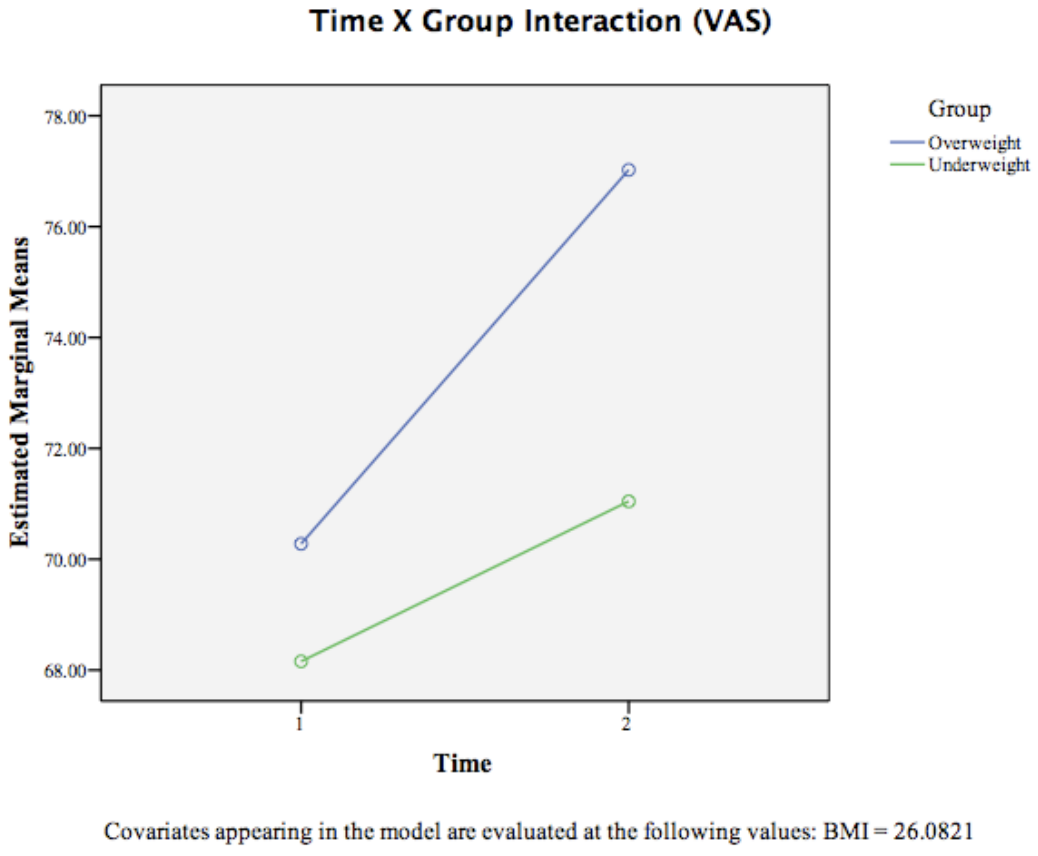
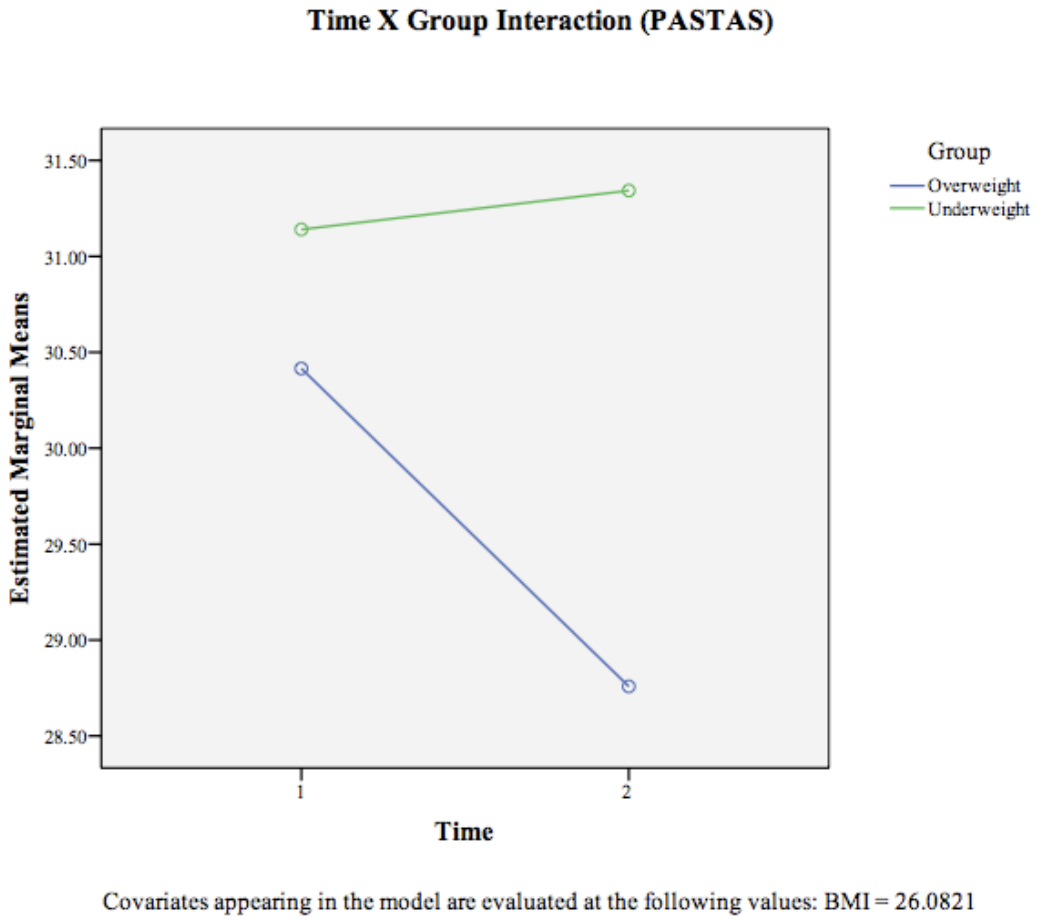


Figure 2: Time X Group Interaction (PASTAS)



To further investigate the trends found in the ANCOVAs paired samples t-tests were run for each group (see tables 3 and 4). Results indicated that body satisfaction (VAS) did not change significantly from time 1 to time 2 for those who viewed the clip of underweight females. Further, the trend, though non-significant, was not in the hypothesized direction. After viewing the clip, these participants' body satisfaction increased slightly (albeit not significantly). Also, their body anxiety (PASTAS) did not see a significant change from time 1 to time 2.

Participants who viewed the clip of overweight females saw a slightly larger change in body satisfaction from time 1 to time 2, however, this change was not significant. The trend for this change was in the hypothesized direction – body satisfaction increased after viewing the clip. Interestingly, body anxiety scores were significantly different from pre- to post-test (t=2.96, p=.01) such that body anxiety decreased after viewing the clip of overweight images.

Table 3: *Pre-Post t-tests for Underweight Group*

	Mean	***SD***	***t***	***Sig. (2-tailed)***
VAS-Pre	67.20	30.63	-.82	.42
VAS-Post	70.10	28.73		
PASTAS-Pre	31.50	9.64	-.03	.98
PASTAS-Post	31.57	9.78		

Table 4: *Pre-Post t-tests for Overweight Group*

	Mean	***SD***	***t***	***Sig. (2-tailed)***
VAS-Pre	71.38	39.73	-1.43	.16
VAS-Post	78.12	39.62		
PASTAS-Pre	30.00	11.12	2.96	.01
PASTAS-Post	28.50	10.96		

CHAPTER 5: DISCUSSION

Females, particularly those in college, are especially vulnerable to several negative outcomes. Previous research has shown that exposure to certain aspects of the media can amplify these outcomes for many females. Results of the present study suggest that body satisfaction is not correlated with eating disturbances or social comparison. However, body satisfaction is negatively correlated with body anxiety, such that as body satisfaction increases body anxiety decreases. These findings provide only partial support for hypothesis one. It may be that the anticipated relationships were not supported by the data for several reasons. Specifically, this particular sample was in the satisfied range in body satisfaction, had relatively healthy eating habits, and mid-range levels of social comparison. It is possible that these variables were not significantly related because participants were neither particularly high nor low on any of these scales.

In contrast with other studies which have found that exposure to thin and attractive individuals in the media lead to decreased body satisfaction (i.e., Groesz, Levine, & Mumen, 2002), results of the present study did not support this finding. In fact, those who viewed images that were rated as representing the thin and attractive American ideal actually saw a slight (albeit non-significant) increase in body satisfaction and virtually no change in level of body anxiety. This result does not provide support for hypothesis three, which expected body satisfaction to decrease and body anxiety to increase among these participants. It is possible that the study was too face valid in that filling out the questionnaires regarding these topics caused them to assess how they felt about their bodies, and because the clip was shown immediately after they completed

these, may have had an effect on the salience of the images. However, those who viewed images that were rated as being larger than the American ideal saw a larger, though not significant, increase in body satisfaction. Additionally, and of relevance to the aim of the present study, there was a significant decrease in level of body anxiety among individuals in this group after they viewed media images of larger individuals. Therefore, hypothesis four is partially supported.

The variable support for hypothesized relationships, as well as the contrasting findings compared to previous research, could be due to several factors. First, because there was only about a five minute gap between pre and post evaluation of body satisfaction and body anxiety, the images may not have been internalized enough. It might also be the case that the images were simply not salient enough to have an influence on participants' body satisfaction. Additionally, few participants had elevated levels of eating disturbance, which has previously been correlated with body satisfaction. Because of this, it is possible that those who participated in the present study had both healthy eating behaviors and higher body satisfaction. It is also plausible that participants became aware of the constructs under investigation, such that their ratings reflected a desire not to conform to the expectations of the experimenter. Finally, a previous study found that even very young girls are negatively affected by exposure to unrealistic and idealized media images (Dittmar, Haliwell, & Ive, 2006). Taking this into account, it is possible that many years of exposure to such images has already negatively influenced participants' body satisfaction, and the very short clip was not enough to have a significant impact.

The results of the present study suggest that brief exposure to images of thin females is not enough to significantly change body satisfaction or body anxiety among college females. However, the same amount of exposure to images of overweight females was enough to significantly change body anxiety, and to evoke a positive trend for body satisfaction, suggesting that even brief exposure to such images can have positive effects. Based on these two findings, future research on this topic should move away from examining the negative effects of viewing thin and "attractive" (underweight) individuals as the present study found no significant negative effect from exposure to this ideal. Instead, it may be more beneficial for future research to focus on the potentially significant positive effects of viewing more average or overweight individuals. Therefore, it may be more effective to move toward a focus on positive psychology to evoke more positive changes.

Some limitations should be taken into consideration when interpreting the findings of the present study. First, self-report measures that asked about potentially sensitive topics were utilized which could have had an impact on the degree of honesty. Further, participants were recruited via convenience sampling (from psychology courses), which could limit the generalizability of the findings. Future studies in this area of body image research should attempt to recruit participants from a variety of courses offered to college students. Another limitation is that males were excluded from this study. While this was done intentionally based on the rationale that females may be more vulnerable to the thin ideals of the media, future studies should attempt to include an even number of males and females so that statistical sex comparisons can be made. It is quite possible that males are impacted by exposure to "masculine" or "muscular" ideals in the media,

and recent studies find that body image disturbance is on the rise among males in college (Hildebrandt, Alfano, & Langenbucher, 2010). By including males, we could possibly shed light onto how exposure to the media affects males and females differently, and might allow for effective interventions to be created and utilized.

Similarly, because the sample was primarily Caucasian, it is unclear whether individuals from other ethno-cultural or racial backgrounds are affected by exposure to the media in the same way. Future studies should attempt to include a variety of racial backgrounds, which would allow for statistical comparisons. Recent studies, however, have found that the gap between Caucasians and racial/ethno-cultural minorities may be decreasing (Shaw, Ramirez, Trost, Randall, & Stice, 2004), but a more diverse sample would increase the predictability and possibly the applicability of findings. Finally, because this study was non-longitudinal it may be the case that participants' body (dis)satisfaction was more or less affected by the short period of time between pre and post testing. Future studies should consider conducting an experimental, longitudinal study in this area in an attempt to discover whether or not such time periods make a difference.

Despite the above limitations, the findings of the present study may be strengthened by the fact that it was experimental in nature. This type of design allowed for between group comparisons, which would not have been possible without the experimental manipulation. Further, even though the participants were all female college students, they represent a high-risk group when it comes to these variables, as they are very susceptible to body dissatisfaction and depression (Santos, Richards, & Bleckley, 2007; Van de Velde, Bracke, & Levecque, 2010). Additionally, the images that were

shown were carefully selected, taking into consideration both valence ratings and consistent placement in underweight or overweight categories. Finally, while the measures were self-report, they are psychometrically sound as has been shown through statistical comparisons made to other well-established measures. Overall, findings may be viewed as promising in terms of the positive impact of viewing media images of individuals who are representative of the general population.

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Appendices

Appendix A

Informed Consent Form

What is the purpose of this research?

The purpose of this research is to explore the relationship between various attitudes and behaviors and perceptions of the media.

What will be expected of me?

If you are a student and you are 18 years of age or older, you are eligible to participate in this study. First, you will be introduced to the study, including risks and benefits, and if you want to participate, you will sign an informed consent form prior to filling out the study survey. Participation is completely voluntary and you can decide to withdraw from the study at any time without penalty. If you consent to participation, you may be given research credits (units) as determined by your instructor. No other reward (monetary or otherwise) will be provided for participation. Next, you will be asked to fill out a packet of surveys and observe a slideshow of images, and it will take approximately 30 minutes. Some people need more or less time, but we will ask you to please read each question carefully. Please do not put your name on any of the questionnaires – only on the consent forms! When you have completed the packet of questionnaires, you will return the packet and the informed consent form to the experimenter and he or she will separate the consent form from the rest of the packets. That way your responses will be kept confidential. When you return your informed consent form and questionnaire packet, you will also be given a Debriefing Form that further explains the purpose of the study and lists contact information for the researcher and appropriate resources.

How long with the research take? Approximately 30 minutes

Will my answers be anonymous?

Your answers will remain confidential. Specifically, you will not be asked to provide your name or identifying information on the surveys. Your consent form is the only form that will have your name on it, and it will be separated from your survey packet. Your survey packet will have a participant number on it, but it will only be matched to the number on your consent form if you wish to be removed from the study and have your data/survey destroyed. The surveys and consent forms will be kept in separate files in a locked office. Your responses will not be linked to your name.

Can I withdraw from the study if I decide to?

Yes! You can withdraw from the study at any time without penalty.

Is there any harm that I might experience from taking part in the study?

There is no risk of physical, legal, psychological, or social harm to participants. Other than transient emotional discomfort that you may experience as a result of reflecting on your attitudes and behaviors while filling out the surveys, every effort will be made to ensure your safety and well-being. Specifically, the experimenter will remain alert and you can ask questions at any time.

How will I benefit from taking part in the research?

In addition to the direct benefit of earning research credit toward a course, the potential benefits to participants includes; the opportunity to experience first-hand how researchers conduct surveys and gather information in this type of psychological research. You might also find it useful to reflect on your own experiences and perceptions as evoked by the survey questions. Finally, your participation may ultimately inform clinicians, researchers, consumers, and the community at large regarding the relationships among study variables that are included in the surveys.

Who should I contact if I have questions or concerns about the research?

Contact Dr. Asberg, at the Department of Psychology at Western Carolina University, Cullowhee, NC 28723 (Phone: 828-227-3365). You can also contact the IRB Chair at (828) 227-3177.

Name_____Signature_____Date: _____

Appendix B

Eating Attitudes Test-26

Height _____
Current Weight _____
Highest Weight (excluding pregnancy) _____
Lowest Adult Weight _____

	Always	Usually	Often	Sometimes	Rarely	Never
1. Am terrified about being overweight	O	O	O	O	O	O
2. Avoid eating when I am hungry	O	O	O	O	O	O
3. Find myself preoccupied with food	O	O	O	O	O	O
4. Have gone on eating binges where I feel that I may not be able to stop	O	O	O	O	O	O
5. Cut my food into small pieces	O	O	O	O	O	O
6. Aware of the calorie content of foods that I eat	O	O	O	O	O	O
7. Particularly avoid foods with a high carbohydrate content (i.e., bread, rice, potatoes, etc.)	O	O	O	O	O	O
8. Feel that others would prefer if I ate more	O	O	O	O	O	O
9. Vomit after I have eaten	O	O	O	O	O	O
10. Feel extremely guilty after eating	O	O	O	O	O	O
11. Am preoccupied with a desire to be thinner	O	O	O	O	O	O
12. Think about burning up calories when I exercise	O	O	O	O	O	O
13. Other people think that I am too thin	O	O	O	O	O	O
14. Am preoccupied with the thought of having fat on my body	O	O	O	O	O	O
15. Take longer than others to eat my meals	O	O	O	O	O	O
16. Avoid foods with sugar in them	O	O	O	O	O	O
17. Eat diet foods	O	O	O	O	O	O
18. Feel that food controls my life	O	O	O	O	O	O
19. Display self-control around food	O	O	O	O	O	O
20. Feel that others pressure me to eat	O	O	O	O	O	O
21. Give too much time and thought to food	O	O	O	O	O	O
22. Feel uncomfortable after eating sweets	O	O	O	O	O	O
23. Engage in dieting behavior	O	O	O	O	O	O
24. Like my stomach to be empty	O	O	O	O	O	O
25. Enjoy trying new rich foods	O	O	O	O	O	O
26. Have the impulse to vomit after meals	O	O	O	O	O	O

Appendix C

Sociocultural Attitudes Toward Appearance Questionnaire-3

Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Disagree = 1
Mostly Disagree = 2
Neither Agree Nor Disagree = 3
Mostly Agree = 4
Definitely Agree = 5

1. TV programs are an important source of information about fashion and "being attractive." _____
2. I've felt pressure from TV or magazines to lose weight. _____
3. I do not care if my body looks like the body of people who are on TV. _____
4. I compare my body to the bodies of people who are on TV. _____
5. TV commercials are an important source of information about fashion and "being attractive." _____
6. I do not feel pressure from TV or magazines to look pretty. _____
7. I would like my body to look like the models who appear in magazines. _____
8. I compare my appearance to the appearance of TV and movie stars. _____
9. Music videos on TV are not an important source of information about fashion and "being attractive." _____
10. I've felt pressure from TV and magazines to be thin. _____
11. I would like my body to look like the people who are in movies. _____
12. I do not compare my body to the bodies of people who appear in magazines. _____
13. Magazine articles are not an important source of information about fashion and "being attractive." _____
14. I've felt pressure from TV or magazines to have a perfect body. _____
15. I wish I looked like the models in music videos. _____
16. I compare my appearance to the appearance of people in magazines. _____
17. Magazine advertisements are an important source of information about fashion and "being attractive." _____
18. I've felt pressure from TV or magazines to diet. _____
19. I do not wish to look as athletic as the people in magazines. _____
20. I compare my body to that of people in "good shape." _____
21. Pictures in magazines are an important source of information about fashion and "being attractive." _____
22. I've felt pressure from TV or magazines to exercise. _____
23. I wish I looked as athletic as sports stars. _____
24. I compare my body to that of people who are athletic. _____
25. Movies are an important source of information about fashion and "being attractive." _____
26. I've felt pressure from TV or magazines to change my appearance. _____
27. I do not try to look like the people on TV. _____
28. Movie starts are not an important source of information about fashion and "being

attractive." _____

29. Famous people are an important source of information about fashion and "being attractive." _____
30. I try to look like sports athletes. _____

Appendix D

Physical Appearance Comparison Scale

Using the following scale please select a number that comes closest to how you feel:

Never = 1
Seldom = 2
Sometimes = 3
Often = 4
Always = 5

1. At parties or other social events, I compare my physical appearance to the physical appearance of others. 1 2 3 4 5

2. The best way for a person to know if they are overweight or underweight is to compare their figure to the figure of others.
1 2 3 4 5

3. At parties or other social events, I compare how I am dressed to how other people are dressed. 1 2 3 4 5

4. Comparing your "looks" to the "looks" of others is a bad way to determine if you are attractive or unattractive. 1 2 3 4 5

5. In social situations, I sometimes compare my figure to the figures of other people.
1 2 3 4 5

Appendix E

Physical Appearance State and Trait Anxiety Scale

The statements listed below are used to describe how anxious, tense, or nervous you feel *Right Now* about your body. Use the following scale:

Not at All = 0
Slightly = 1
Moderately = 2
Very Much So = 3
Exceptionally So = 4

Right now, I feel anxious, tense, or nervous about:

1.	The extent to which I look overweight.	0	1	2	3	4
2.	My thighs.	0	1	2	3	4
3.	My buttocks.	0	1	2	3	4
4.	My hips.	0	1	2	3	4
5.	My stomach (abdomen).	0	1	2	3	4
6.	My legs.	0	1	2	3	4
7.	My waist.	0	1	2	3	4
8.	My muscle tone.	0	1	2	3	4
9.	My ears.	0	1	2	3	4
10.	My lips.	0	1	2	3	4
11.	My wrists.	0	1	2	3	4
12.	My hands.	0	1	2	3	4
13.	My forehead.	0	1	2	3	4
14.	My neck.	0	1	2	3	4
15.	My chin.	0	1	2	3	4
16.	My feet.	0	1	2	3	4

Appendix F

Visual Analogue Scale

Completely Unsatisfied with my body

Completely Satisfied with my body

Appendix G

Zung Self-Rating Depression Scale

Please read each statement and decide how much of the time the statement describes how you have been feeling during the past several days.

	A little of the time	Some of the time	Good part of the time	Most of the time
1. I feel down-hearted and blue				
2. Morning is when I feel the best				
3. I have crying spells or feel like it				
4. I have trouble sleeping at night				
5. I eat as much as I used to				
6. I still enjoy sex				
7. I notice that I am losing weight				
8. I have trouble with constipation				
9. My heart beats faster than usual				
10. I get tired for no reason				
11. My mind is as clear as it used to be				
12. I find it easy to do the things I used to				
13. I am restless and can't keep still				
14. I feel hopeful about the future				
15. I am more irritable than usual				
16. I find it easy to make decisions				
17. I feel that I am useful and needed				
18. My life is pretty full				
19. I feel that others would be better off if I were dead				
20. I still enjoy the things I used to do				

Appendix H

Demographics Questionnaire

1. Age (In years): _____
2. Height (In inches): _____
3. Weight (In pounds): _____
4. Circle your current year in school:

   Freshman Sophomore Junior Senior Other

5. Please check your ethnicity:

   Caucasian _____

   African American _____

   Native American _____

   Hispanic/Latino _____

   Asian _____

   Mixed Race _____

   Other _____

Appendix I

Debriefing Form

The media has been shown to influence how individuals feel about their bodies. More specifically, exposure to media images depicting women who are very thin and attractive tends to result in a decrease in body satisfaction. This is particularly true for college women, as they are an especially vulnerable population to depression, social comparison, and body dissatisfaction.

If you are experiencing distress as a result of participating in this study or for any other reason feel free to contact Western Carolina's Counseling Center at: (828) 227-7469

If you have any questions or concerns regarding this study please feel free to contact:
The IRB Chair at: (828) 227-3177
Dr. Kia Asberg at: (828) 227-3365