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Lyndsay N. Greene
Lynchburg College

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The Skinny on Eating Attitudes, Body Image, and the Thin-ideal in College Women

Lyndsay N. Greene

Lynchburg College

Abstract

There is evidence of a link between body image and disordered eating among females, and some research that suggests exposure to the media exacerbates both body dissatisfaction and eating pathology. Despite these claims, little research has been done on the effects that exposure to photo-shopped images specifically has on body dissatisfaction and eating pathology. The present study sought to further understand the relationship between cognitive distortions of body image and eating attitudes and to examine the effects that exposure to the thin-ideal found in the media has on body dissatisfaction among college aged women. Eighty female college students answered questions about their body image, eating attitudes and were exposed to photo-shopped images. Other questions assessed preferences of body type. Results yielded a significant correlation between body image cognitive distortions and eating attitudes. Results also indicated that individuals who preferred a body type different than their own were more dissatisfied with their appearance and had higher average body weights. In addition, over 80% of participants indicated an ideal body type that fell into a category that was either underweight or the lowest normal weight.

Keywords: body image, disordered eating, thin-ideal

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An increasing number of women across the nation are too familiar with the desire to change something about their appearance; this desire is shown through self-reports of body dissatisfaction (Posavac, Posavac, & Posavac, 1998). In fact, it has been estimated that roughly half of females ranging from elementary school age to college age report body dissatisfaction (Bearman, Martinez, Stice, & Presnell, 2006). Although this statistic is alarming, it is not surprising when taking into consideration the role that the importance of appearance takes in the developmental course of a woman's lifetime. Hill and Lynch (1983) asserted that as individuals begin to mature, they start to identify with gender stereotypes; in following this gender intensification hypothesis, females often adhere to the assumption that their central value is dependent upon their physical appearance (Bearman et al., 2006).

This assumption is fueled by the internalization of what has been deemed as the "thin-ideal" that is portrayed by the media. This thin-ideal is created by the overrepresentation of thin models of various mediums of media. Wiseman, Gray, Mosimann and Ahrens (1992) reported that the ideal body weight for females depicted in print media has decreased over the past few decades, thus resulting in the average model's weight exceeding 20% underweight. To grasp how severely misrepresentative being 20% underweight is, one can compare this to the diagnostic criteria set forth by the Fifth Edition of the Diagnostic and Statistical Manual of Anorexia Nervosa (AN) being only 15% underweight (American Psychiatric Association, 2013). PLUS Model Magazine (2012) confirmed that despite the passing of twenty years, a large gap between the weight of the average model and the weight of the average woman still exists. Reporters asserted the average model only weighed around 8% less than the average woman twenty years ago; however today, the average model now weighs around 23% less than the

average woman and that the majority of models still meet diagnostic criteria of AN (PLUS Model Magazine, 2012).

It is important to note that rather than being limited to just one type of media, the thin-ideal has penetrated various media outlets, including print, such as magazines and billboards, as well as film, such as television and movies (Grabe, Ward, & Hyde 2008; Wiseman et al., 1992). This infiltration of the thin-ideal can be seen through the overrepresentation of thin actors and models compared to the vast underrepresentation of overweight individuals (Grabe et al., 2008). Because women typically rely on the media to obtain a standard of beauty (Lakoff & Scherr, 1984), it is not shocking that a negative correlation exists between the average model weight and body dissatisfaction reported among females. Grabe et al. (2008) strengthened this argument through their presentation of communication theories stating that the more individuals are exposed to something, the more likely they are to accept this exposure as reality; thus, the more a woman is exposed to the thin-ideal, the more likely she is to accept being more than 20% underweight is realistic. It must be noted, however, that just because an individual is repeatedly exposed to the thin-ideal, does not mean that this individual will definitively accept the images presented within the thin-ideal as reality. Internalization of the thin-ideal typically occurs when women begin to set the unrealistically thin standards of beauty depicted by the media as personal goals (Daniel & Bridges, 2010). Because not all women necessarily set goals on the basis of societal standards of beauty, a distinction between internalization and awareness of the thin-ideal must occur.

Posavac et al. (1998) suggested that being dissatisfied with one's body is a result of a personality trait, something remaining stable over time, acting as a mitigating factor in being vulnerable to the thin-ideal presented by the media. Researchers found that if a woman was

reportedly satisfied with her body prior to exposure to the thin-ideal, she did not experience discontent following the presentation of the thin-ideal (Posavac et al., 1998). From these findings it can be assumed that simply being aware of the thin-ideal introduced by the media does not definitively result in body dissatisfaction, but rather a predisposed vulnerability to accepting and internalizing the thin images presented by the media as true representations of the ideal woman.

Posavac et al. (1998) proposed explanations as to why some women do not internalize the thin-ideal despite exposure. For instance, if a woman's body is already similar to the thin-ideal, she may not find a discrepancy between her appearance and what is expected from society, thus there is no need for her to internalize the societal standard of beauty. Another reason a woman may escape internalizing the thin-ideal is through confidence in other aspects of her life. If a woman places less importance on her appearance in comparison to other skills or abilities, a discrepancy between her appearance and the thin-ideal would not necessarily define her, thus she would have no need to internalize the thin-ideal.

In an attempt to further explore why certain women internalize the thin-ideal whereas others do not, despite all women being aware of the ideal, Riva, Gaudio, and Dakanalis (2014) suggested that the aforementioned vulnerability to internalization of the thin-ideal was a result of first internalizing expectations set forth by Westernized culture, subsequently objectifying oneself. Supporting the idea that physical appearance serves as the central source of evaluation for women (Bearman et al., 2006; Riva et al., 2014), women can accept this as a valid assumption, in turn, viewing themselves as nothing more than "objects to be evaluated specifically on the basis of appearance rather than their personhood" (Daniel & Bridges, 2010, p. 33). By being lead to believe that she is no more than an object to be evaluated by others, appearing to be less than perfect or failing to meet the thin-ideal set forth by the media, a woman

can easily experience body dissatisfaction by means of shame and/or anxiety (Groesz, Levine, & Murnen, 2001). If a woman succumbs to adherence of self-objectification, a link between thinness (and consequent attractiveness) and desirability forms (Tiggemann, 2003). When a link between thinness and desirability has been established within a woman's cognitions, it can be assumed that she has internalized the thin-ideal set forth by the media, thus opening the doors to many negative consequences, such as body dissatisfaction and eating pathology, consequences that may not have been present prior to this internalization.

Because the thin-ideals portrayed by the media are unattainable to the majority of women, this emphasis on how important it is to be thin can often lead to body dissatisfaction (Tiggemann, 2003), especially if the woman has internalized or "bought into" the thin-ideal, rather than simply being aware of it (Halliwell & Dittmar, 2004). Upon researching the connection between internalization of the thin-ideal and exposure to the media further, Brown and Dittmar (2005) found that women who internalize the thin-ideal displayed increased levels of body-related anxiety after being exposed to thin models. These findings support those of previous research that also conclude that internalization of the thin-ideal mediates the relationship between body dissatisfaction as well as eating pathology and exposure to the media (Bearman et al., 2006; Groeys et al., 2001; Riva et al., 2014; Stice, Schupak-Neuberg Shaw, & Stein, 1994; Tiggemann, 2003). The question remains as to how internalization of and exposure to the thin-ideal within the media relates to dissatisfaction and eating pathology among females.

Body dissatisfaction arises from failure to acknowledge the gap found between standards of beauty portrayed as ideal, desirable, and realistic and those of which occur in actuality. As mentioned previously, the thin-ideal is created by the utilization of models as much as 20% underweight (Wiseman et al., 1992) and the overrepresentation of underweight actresses (Grabe

et al., 2008), thus the media paints a highly unrealistic picture of what the ideal woman should look like. As the discrepancy between what is displayed by the media and a realistic body size broadens, an increasing number of women experience body dissatisfaction upon failing to measure up to the thin-ideal that they have internalized as the gold standard of beauty (Brown & Dittmar, 2005). The correlation between media exposure, thin-ideal internalization, decreased body satisfaction and disordered eating attitudes and beliefs has been shown in multiple studies (Daniel & Bridges, 2010; Grabe et al., 2008; Harrison & Cantor; Leon, Fulkerson, Perry, & Cudeck, 1993; Stice et al., 1994). However, before drawing definitive conclusions about the correlations between these elements, each factor within this relationship should be explored further.

Eating Pathology

Rather than focusing on specific eating disorders, such as anorexia nervosa, bulimia nervosa or binge eating disorder, this study aims to identify general eating pathology; although many women engage in disordered eating attitudes and/or behaviors, not all meet diagnostic criteria set forth by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). For instance, one of the requirements the DSM-5 has for a diagnosis of anorexia nervosa (AN) is weight (American Psychiatric Association, 2013). Thus even though a woman meets all other criterion for AN, such as dietary restriction or severe and irrational anxiety related to weight gain but she does not fall within the cutoff weight, she does not have AN. Similarly, a specific requirement for a diagnosis of bulimia nervosa (BN) or binge eating disorder (BED) is frequency of the disordered eating behaviors (American Psychiatric Association, 2013). Thus even though a woman engages in bingeing and compensatory or only

binging behaviors, displaying an obvious deficit in self-control, yet does not meet the criterion of 1-3 episodes per week, she does not have BN or BED.

Though the cutoffs for diagnosable eating disorders may not seem problematic, the discrepancies between prevalence rates of AN, BN, and BED compared to those of disordered eating suggest otherwise. Weis (2014) reported lifetime prevalence for AN, BN, and BED to be 0.5% - 1%, 1.5% - 4%, and 2.6%, respectively. These numbers seem to be excessively low, especially when comparing them to findings that suggest approximately 61% of college aged women have reported eating pathology (Mintz & Betz, 1988). Other research conducted by Tylka & Subich (2002) examined specific eating pathologies among high school and college aged women; results showed that 59% skipped meals, 37% restricted caloric intake, 30% eliminated fats from their diets, 27% eliminated carbohydrates from their diets, 28% exercised excessively on a daily basis, and 26% fasted for an excess of 24 hours. These results strengthen the assertion that “‘normal’ [eating] is not normative” among college women (Mintz & Betz, 1988, p. 470) with only about one third of college women reporting eating habits that are not maladaptive (Mintz & Betz, 1988). Therefore, after comparing lifetime prevalence rates side by side with disordered eating attitudes and behaviors, it can be assumed that the immense divergence between these numbers are a result of women failing to meet certain diagnostic criterion set forth by the DSM-5, such as weight and frequency of behaviors.

Body Image

Body image has been defined as an individual’s “perceptions and attitudes regarding their physical appearance” (Jakatdar, Cash, & Engle, 2006); the two main attitudinal factors of body image are said to be evaluation and investment (Cash, as cited by Jakatdar et al., 2006).

Evaluation can be described as an assessment of one's physical appearance, more specifically if he or she is satisfied or dissatisfied with his or her body image; investment is said to entail the cognitive and behavioral pertinence one places on his or her physical appearance, including what are deemed as "self-schemas" related to appearance (Jakatdar et al., 2006). Self-schemas are defined as "cognitive generalizations about the self, derived from past experience, that organize and guide the processing of self-related information contained in an individual's social experience (Markus, 1977, p. 63)." Self-schemas in relation to body image connect the relationship of one's physical appearance to their inherent self-worth, much like the assumption drawn by the previously mentioned objectification theory. Objectification theory suggested that upon internalizing others' appraisals of her body, a woman's self-worth is determined by such appraisals that have been formed upon the basis of physical appearance (Fredrickson & Roberts, 1997); in other words, a woman's self-worth is dependent upon and directly linked to her physical appearance, if a woman internalizes this belief, an appearance self-schema is created.

Jakatdar et al. (2006) asserted that if an individual is highly schematic and places a great deal of focus on his or her appearance, that individual will in turn process appearance-related information differently than a less-schematic person. It is through this difference in processing that cognitive distortions arise. A cognitive distortion that may emerge as a result of negative self-schemas about appearance could be making arbitrary inferences (Corey, 2013), more specifically, catastrophizing; catastrophizing is defined as "thinking of the absolute worst scenario and outcomes for most situations" (Corey, 2013, p. 303). For example, if a woman believes that her self-worth is directly linked to her physical appearance, she internalizes the thin-ideal and acknowledges her inability to meet the standards of beauty set forth by the media, she may believe that she is worthless. Once a woman has adopted these erroneous thought-

patterns, paired with the idea that her physical appearance serves as a core evaluative factor, it is not difficult to understand how body dissatisfaction arises. In support of this inference, Rudiger, Cash, Roehrig, and Thompson (2007) reported that individuals who determine their self-worth by means of high levels of investment in their appearance were more vulnerable to higher levels of body dissatisfaction while individuals who place less investment in their appearance when determining self-worth had less body dissatisfaction. Thus, it can be assumed that preceding cognitive distortions serve as mediators in dissatisfaction with one's body-image.

Body dissatisfaction is a pertinent topic of study because it appears to be the norm with American women, failing to discriminate between size or age, with around 50% of college women reporting some level of body dissatisfaction (Grabe et al., 2008; Posavac et al., 1998). This increase in number of women who are dissatisfied with their bodies has resulted in researchers regarding body dissatisfaction as a "normative experience" (Brown & Dittmar, 2005; Groesz et al., 2001). Even more alarming than the prevalence of body dissatisfaction among women are the risks that it exposes women to, such as eating pathology, low self-esteem, obesity, and mood disorders such as anxiety and depression. Therefore it is not a stretch to deem body dissatisfaction as a main factor in women's physical and mental health (Grabe et al., 2008).

Media

Recent increases in the representation of underweight models and actresses in the media and levels of body dissatisfaction among American women are thought to be directly correlated with women becoming more dissatisfied when they are unable to reach the unattainable standards of beauty set forth for them by society (Brown & Dittmar, 2005). After comparing women's levels of body dissatisfaction prior to and following exposure to the thin-ideal that is

overwhelmingly portrayed in the media, studies have found that women consistently report being less satisfied with their body after viewing thin individuals in the media (Brown & Dittmar, 2005; Grabe et al., 2008; Groesz et al., 2001; Halliwell & Dittmar, 2004; Moradi et al., 2005; Tiggemann, 2003). Although steadfast changes in behavior and attitudes cannot be accurately assessed in as short of a time period as an experiment, the findings of such experiments should not be taken lightly as it is concerning that even brief exposure to the thin-ideal has been shown to directly affect women's body satisfaction levels (Grabe et al., 2008).

It is also interesting to examine how exposure to different mediums of media directly affects women's body dissatisfaction; researchers have found that not all media is equal in this respect (Groesz et al., 2005; Tiggemann, 2003). Tiggemann (2003) concluded that the thin-ideal portrayed in magazines does not affect women in the same way that it does in television or movies; reading magazines with thin models was related to higher levels of internalization of the thin-ideal, whereas viewing television with thin actresses did not. Harrison and Cantor (1997) also found that exposure to the thin-ideal via magazine resulted in higher levels of eating pathology than exposure to television shows depicting the thin-ideal. One possible explanation behind this discrepancy between mediums is that already thin models shown in fashion magazines have the potential to appear even thinner by means of the photo-shopping process, whereas those in television do not.

The American Medical Association (2011) described photo-shop as a tool that enhances and alters the appearance of models' bodies. While photo-shop's ability to alter the appearance of photos is universally agreed upon, this is more than can be said for the reasoning behind why it is so commonly used. Graupman (2011) contended that photo-shop is used to "bring a subject more into focus, not [for] creating works of fiction" while Victoria's Secret model Erin

Heatherton (as cited in Karmali, 2011) stated just the opposite, that photo-shop is for “selling a story...creating...fantasy.” It is through statements such as the latter that claim the photo-shop process is used to create intentionally unrealistic images that problems arise for women who are vulnerable to internalization of the thin-ideal. As mentioned previously, women who internalize the thin-ideal are at a greater risk for body dissatisfaction (Birkeland, Thompson, Herbozo, Roehrig, Cafri, & van den Berg, 2005; Grabe et al, 2008; Groesz et al., 2001; Halliwell & Dittmar, 2004; & Tiggemann, 2003) which can subsequently put them at an increased risk for eating pathology (Grabe et al., 2008; Moradi et al., 2005; Stice et al., 1994; and Stice et al., 2000). It is also pertinent to keep in mind that internalization of the thin-ideal is typically perpetuated by setting goals for personal appearance based on the unrealistically thin standards of beauty depicted by the media (Daniel & Bridges, 2010). Therefore, if women who are vulnerable to internalization of the thin-ideal set goals for their own appearance after viewing images of models that have intentionally been photo-shopped to appear impossibly thin, an upward comparison with unattainable results can ensue. Thus, it can be assumed that the photo-shop process further perpetuates body dissatisfaction among women who internalize the thin-ideal. This assumption is especially alarming when taking into consideration that Wilson (2009) reported that the majority of images displayed in magazines have been photo-shopped.

Present Study

Though an undeniable link has been shown between media exposure, body dissatisfaction, and eating pathology, the cognitive-behavioral theory of eating disorders presented by Weis (2014) explains this link most efficiently. The cognitive-behavioral approach to understanding eating pathology consists of three factors – thoughts, feelings, and actions; the basic assumption underlying this theory is that all three of these factors are intertwined with one

another (Weis, 2014). The first component of the cognitive-behavioral model is a disturbance in affect, in the case of the present research, body dissatisfaction; the second component to the theory is a disturbance in cognitions, otherwise known as cognitive distortions that result from self-schematization and internalization of the thin-ideal portrayed within the media; and the third component to cognitive-behavioral theory is a disturbance in behavior, in this case, eating pathology. Because these three factors are interconnected, they contribute to the cycle of eating pathology. For example, a woman who has internalized the belief that her self-worth is determined by her physical appearance, more specifically how thin she is (cognition), is exposed to the thin-ideal within the media, and upon her inability to measure up to the standards of beauty portrayed by the media, feels discouraged and dissatisfied with her body (affect), therefore she adopts disordered eating behaviors in an attempt to lose weight (behavior). Her behaviors are negatively reinforced, though she may begin to experience even more dysphoria overtime when her efforts are not rewarded by meeting the previously mentioned unattainable goals; to compensate for her feelings of failure and/or hunger brought upon by the disordered eating, she may break her diet and binge. If this occurs, the negative affect that precipitated this series of events is introduced once again, thus the cycle continues.

Therefore, because the link between body dissatisfaction and eating is apparent and is undoubtedly exacerbated by the media, the present study aims to further research the relation between body image and eating attitudes/behaviors, as well as the effect that the media has on college aged women's level of body satisfaction. These topics are important to examine further because the levels of body dissatisfaction and eating pathology are on the rise among American women and the parallels between these increases and the decrease in the weight of the ideal female are undeniable (Halliwell & Dittmar, 2004).

The current study will assess the relationship between cognitive distortions related to body image among college women and disturbances in eating attitudes. It is predicted that participants who report more body-image cognitive distortions will also report more maladaptive eating attitudes and behaviors, thus showing a positive correlation between body dissatisfaction and eating pathology. The current study will also assess the role that the media plays in body dissatisfaction by showing roughly half of the participants “after” images of photo-shopped models and half images of the process of photo-shopping models. Following this manipulation, cognitive distortions of body image will be measured again. It is predicted that participants who do not view the photo-shop process will report more cognitive distortions of body image after viewing images of photo-shopped models, demonstrating that exposure to photo-shopped media has a negative effect on body image. The present study will also examine any discrepancies participants have in terms of body type; it is predicted that most participants view a body image that is thinner than their own as “ideal.” It is predicted that participants who report a discrepancy between their perceived body type and ideal body type will also report higher levels of body dissatisfaction and eating pathology as well as have a higher average weight than participants who do not report a discrepancy between their perceived body type and ideal body type.

Method

Participants

There were 80 participants in this study; all of which were female undergraduate students enrolled at Lynchburg College, 18 years of age or older; the average age of participants was 19.85. The majority of participants were freshmen, accounting for 32.5% of the sample, 18.8% were sophomores, 30% were juniors, and the remaining 18.8% were seniors. Participants were

predominantly Caucasian at 88.8%, 3.8% were Latino, 1.3% were African American, and 6.3% identified as “other.” Every participant signed up for this study voluntarily, however incentive in the form of two points of extra credit was offered to students currently enrolled in Introductory Psychology courses.

Materials

The *Eating Attitudes Test* (EAT-26; Garner et al., 1982) is an assessment of three factors: dieting, bulimia and food preoccupation, and oral control (see Appendix A). The EAT-26 was adapted from an original version consisting of 40 items, however through factor analysis was reduced to 26 items measured on a 6 point Likert-scale ranging from 1 (never) to 6 (always). Garner et al. (1982) assert that high scores in the dieting factor reflect maladaptive avoidance of fatty foods and preoccupation with body shape; high scores in the factor of bulimia and food preoccupation positively relate to binge/purging behaviors and heavier body weight, and that high scores in the oral control factor relate to lower body weights and self-control around food. Garner et al. (1982) found that the EAT-26 is useful in identifying eating disturbances among clinical as well as non-clinical populations. High scores in the aforementioned factors among non-clinical individuals correlated with eating pathology; while these behaviors did not constitute clinical diagnosis, they were severe enough to interfere with everyday life. This measure proved to be reliable in the present study with a Cronbach’s Alpha of 0.89.

The *Assessment of Body-Image Cognitive Distortions* (ABCD; Jakatdar et al., 2006) is an inventory that evaluates erroneous thinking about how an individual processes information about their appearance. The ABCD has two parallel 18-item forms (see Appendix B) that are scored on a 5 point Likert-scale ranging from 0 (not at all like me) to 4 (exactly like me). The parallel

forms of the ABCD showed high internal reliability as well as discriminant and convergent validity. The ABCD also proved to be reliable in the present study with form A of the ABCD reporting a Cronbach's Alpha of 0.93 and form B's Cronbach's Alpha being 0.96. Jakatdar et al. (2006) found that scores reflecting more cognitive distortions predicted more body dissatisfaction as well as a strong positive correlation between eating pathologies measured by the EAT-26 measure.

Additional materials used in the current study included a photo depicting various body types categorized by body mass index paired questions about body type and demographic questions (see Appendix C). PowerPoint slides with photos of models were also used in the current study to manipulate media exposure. Participants who viewed the photo-shopping process were shown PowerPoint presentation A (see Appendix D); each slide was presented for 5 seconds. Participants who did not view the photo-shopping process were shown PowerPoint presentation B (see Appendix E); each slide was presented for 5 seconds.

Procedure

Participants were recruited voluntarily via sign-up sheets(see Appendix F) hung on a bulletin board outside of classroom 103 on the first floor of the Psychology building at Lynchburg College. Sign-up sheets did not require participants to print their full name, as this could be perceived as identifying information, but rather their first and last initials; sign-up sheets were posted during the second week of classes in the Spring 2015 semester and were continuously posted until March 4th. Data collection took place in small groups in a classroom setting on Lynchburg College's campus. All participants had a maximum of twenty minutes to complete this study. Upon beginning the study, participants were read an oral script that provided

an overview of the topics covered as well as the procedure, reminded them that participation is completely voluntary, thanked them for their participation (see Appendix G); after reading the oral script, participants were given an informed consent sheet (see Appendix H).

A mixed model experimental design was utilized. A within-subjects design was implemented by giving all participants identical pre and post measurements of body image; a between-subjects design was implemented through the awareness of the photo-shopping process. One condition viewed only final images of models who had been photo-shopped while the other condition viewed the photo-shopping process as well as the final images of the same models. Participants received a packet of 69 questions; participants answered the first 51 questions within the packet and were instructed to stop, close the packet and put their pencils/pens down. Participants in condition A were shown a series of pictures of models bodies being photo-shopped (see Appendix D), each photo being shown for 5 seconds via PowerPoint presentation. Participants in condition B were shown a series of “after” pictures of the same models though were not informed about the photo-shopping (see Appendix E); again, each photo was shown for 5 seconds via PowerPoint presentation. After viewing these pictures, all participants resumed the completion of their packet, answering the remaining 18 questions of the measure. Upon completion of the questionnaire, participants were given a debriefing form (see Appendix I), their copy of the informed consent document, and an extra credit slip (see Appendix J) if currently enrolled in an introductory psychology course at Lynchburg College.

Results

A Pearson correlation was conducted to identify the relationship between body image cognitive distortions and eating pathology. It was hypothesized that there would be a strong,

positive relationship between body image cognitive distortions and eating pathology; the correlation was significant, $r = .581$. $p < .001$. Because the correlation was significant and positive, the hypothesis was supported.

Three independent sample t-tests were conducted to compare participants that reported a discrepancy between their perceived body type and their ideal body type and participants whose perceived body type was the same as their ideal body type by means of body image, weight, and eating attitudes. It was hypothesized that participants that reported a discrepancy between perceived body type and ideal body type would report scores indicating higher levels of body dissatisfaction. Participants that did report a discrepancy between their perceived body type and their ideal body type ($N = 59$) had a mean score of 36.68 ($SD = 18.18$) on the Assessment of Body-Image Cognitive Distortions, participants who did not report a discrepancy between their perceived body type and their ideal body type ($N = 21$) had a mean score of 21.19 ($SD = 13.46$) on the Assessment of Body-Image Cognitive Distortions. Figure 1 displays a bar graph of this data. Using an alpha level of .01, results demonstrated a significant difference between the means, $t(78) = -3.57$, $p < .01$, and supported the hypothesis.

It was also hypothesized that participants who reported a discrepancy between perceived body type and ideal body type would have a higher average weight than participants who did not report a discrepancy between their perceived body type and ideal body type. Participants that did report a discrepancy between their perceived body type and their ideal body type ($N = 59$) had a mean weight of 154.85 pounds ($SD = 36.26$), participants who did not report a discrepancy between their perceived body type and their ideal body type ($N = 21$) had a mean weight of 130.19 pounds ($SD = 23.78$). Figure 2 displays a bar graph of this data. Using an alpha level of

.05, results demonstrated a significant difference between the means, $t(78) = -2.90, p < .05$, and supported the hypothesis.

Finally, it was hypothesized that participants reporting a discrepancy between perceived body type and ideal body type would also report scores indicating higher levels of eating pathology. Participants that did report a discrepancy between their perceived body type and their ideal body type ($N = 59$) had a mean score of 67.69 ($SD = 17.97$) on the Eating Attitudes Test, participants who did not report a discrepancy between their perceived body type and ideal body type ($N = 21$) had a mean score of 60.19 ($SD = 14.66$) on the Eating Attitudes Test. Using an alpha level of .05, results did not demonstrate a significant difference between the means, $t(78) = -1.72, p > .05$, and did not support the hypothesis.

A 2(Time) x 2(Condition) mixed model ANOVA was also conducted. It was hypothesized that participants that did not view the photo-shopping process would report higher scores of body image cognitive distortions than those that viewed the photo-shopping process, given their lack of knowledge of the photo-shopping process. Results indicated that the main effect for Condition was not significant $F(1,78) = 1.07, p > .05$. Thus there was no overall difference in the scores of participants that viewed the photo-shopping process ($M = 34.40, SD = 17.53$) compared to participants who did not view the photo-shopping process ($M = 30.54, SD = 19.22$). A significant main effect for Time was not obtained, $F(1,78) = .003, p > .05$. Thus there was no overall difference in scores before the presentation of the photo-shopped pictures ($M = 34.47, SD = 16.03$) and the scores after the presentation of the photo-shopped pictures ($M = 34.40, SD = 17.53$). There was also no significant interaction of time and condition obtained, $F(1,78) = .001, p > .05$. Thus, there was no overall difference in the scores of participants that viewed the photo-shopping process before ($M = 34.47, SD = 16.03$) and after ($M = 34.40, SD =$

17.53) the photo-shopping process was shown; there was also no overall difference in the scores of participants that did not view the photo-shopping process before ($M = 30.57$, $SD = 15.89$) and after ($M = 30.54$, $SD = 19.22$) the final products of photo-shop were shown.

Finally descriptive analyses were conducted for exploratory purposes. Results showed that 73.8% of participants reported a discrepancy between their perceived body type and ideal body type; furthermore, 75% of participants reporting this discrepancy reported their ideal body type as being lower in weight than their perceived body type. Results also showed that 81.3% of participants chose a body type that was either underweight or the lowest normal weight as being ideal, with 41.3% of them preferring the underweight body type.

Discussion

The present study sought to test six hypotheses. It was first hypothesized that there would be a significant, positive correlation between body image cognitive distortions and eating pathology, this hypothesis was supported. Thus, participants who endorsed higher scores of body image dissatisfaction also endorsed high scores of maladaptive eating attitudes and behaviors. These findings are in accordance with previous research that reported body dissatisfaction is among one of the strongest predictors for women to develop eating pathology (Leon et al., 1993). The positive correlation between high scores of body dissatisfaction and eating pathology are also explained by the research conducted by Moradi et al. (2005) that found body shame as a result of internalization of the thin-ideal acted as a mediator for disordered eating symptomology. Thus, it can be assumed that women experiencing body dissatisfaction as a result of internalization of the thin ideal are also more likely to experience eating pathology. Furthermore, Thompson, Coovert, Richards, Johnson, and Cattarin (1995) reported a causal relationship

between body image disturbances and eating pathology among females; moreover, Thompson et al. (1995) found that maladaptive eating habits and psychological functioning concurrently influence each other. Thus, it can be inferred that an individual's body image cognitive distortions reciprocally influence the presence of eating pathology. One final explanation of the present study's findings of a positive correlation between body dissatisfaction and eating pathology is that participants' negative affect acted as a mediator between both body dissatisfaction and eating pathology. Daniel and Bridges (2010) explained disturbances in body image as a function of negative affect, perceptions and behaviors about one's appearance while Stice, Akutagawa, Gaggan, and Agras (2000) reported that negative affect moderates disordered eating. Therefore the positive relationship between participants' scores of body dissatisfaction and eating pathology is unsurprising because negative affect has been shown to moderate both body dissatisfaction and eating pathology in previous research (Daniel & Bridges, 2010; Stice et al., 2000).

It was also predicted that participants who reported a discrepancy between their perceived body type and their ideal body type would report scores indicative of higher levels of body dissatisfaction than participants that did not report a discrepancy between perceived and ideal body type. This hypothesis was supported with participants who reported a discrepancy between their perceived and ideal body types reporting an average score on the Assessment of Body-Image Cognitive Distortions roughly about 15 points higher than participants that did not report a discrepancy between perceived and ideal body types. As previously mentioned, researchers have stated that disturbances in body image are perpetuated by negative affect (Daniel & Bridges, 2010). Daniel and Bridges (2010) also asserted that many individuals aspire to alter the physical appearance of their bodies as a result of disturbances in body image; this aspiration for a physical

appearance different than their current one was seen in the present study through participants' reports of discrepancies between their perceived appearance and their ideal appearance. Thus, given the relationship between body image disturbances and the desire for a physical appearance contrary to one's own previously reported by Daniel and Bridges' (2010), it is not surprising that participants who reported a discrepancy in their perceived and ideal body types also reported higher scores of body dissatisfaction.

It was also hypothesized that participants who reported a discrepancy between their perceived body type and ideal body type would have a higher average weight than participants who did not report a discrepancy between their perceived body type and ideal body type. This hypothesis was supported as participants who reported a discrepancy between their perceived body type and ideal body type had an average weight about 15 pounds higher than participants who did not report a discrepancy. In adhering to the previously mentioned thought behind why participants who reported a discrepancy between their perceived body type and ideal body type also reported scores that endorsed higher levels of body dissatisfaction, it is not surprising that the aforementioned participants also reported an average weight higher than participants that did not report such a discrepancy. If the assumption that the participants who reported a discrepancy between their perceived body type and ideal body type did such because they were dissatisfied with their current physical appearance is correct, it can be inferred that their reported dissatisfaction may emerge from their weight. Davies & Furnham (1986) found that individuals who reported being overweight also reported higher levels of body dissatisfaction. These findings supported the present study's findings that participants with a higher average weight also reported higher levels of body dissatisfaction in comparison to participants with a lower average weight. These findings were also in congruence with research conducted by van den

Berg, Paxton, Keery, Wall, Guo, and Neumar-Sztainer (2007) that found higher body mass indexes (BMI) to be associated with higher levels of body dissatisfaction; therefore participants who weighed more were more likely to be dissatisfied with their bodies.

It was also predicted that participants who reported a discrepancy between perceived body type and ideal body type would report scores indicative of higher levels of eating pathology than participants that did not report a discrepancy between perceived and ideal body type. This hypothesis was not supported as participants who reported a discrepancy between perceived and ideal body type reported an average score on the Eating Attitudes Test roughly only about 3 points higher than participants who did not report a discrepancy, thus there was no significant difference between their scores. Due to the present study's previously mentioned findings that participants who reported a discrepancy between their perceived body type and ideal body type also reported higher scores of body dissatisfaction, it can be concluded that these participants display body dissatisfaction. Past research has reported a positive correlation between body dissatisfaction and eating pathology (Grabe et al., 2008; Moradi et al., 2005; Stice et al., 1994; and Stice et al., 2000), thus it could be assumed that participants who reported a discrepancy between their perceived and ideal body types would report higher scores of eating pathology in comparison to participants that did not report such a discrepancy. However, due to the lack of significant difference on eating attitudes and the presence of a discrepancy between perceived and ideal body type and eating pathology, the findings of the present study are not in agreement with previous research. The discord between the present study's findings and past research may have been due to the self-report measure the present study utilized to obtain participant scores of eating pathology; perhaps participants were not entirely honest in their responses about eating pathology as a result of social desirability. It is possible that participants modified their answers

in an attempt to appear as if they rarely engaged in maladaptive eating behaviors and/or attitudes. Another conceivable explanation for the difference between the present study's findings and those of previous research is that the participants in the present study were recruited from a non-clinical sample, thus it is possible that participants truly did not participate in maladaptive eating behaviors and/or attitudes.

It was also hypothesized that participants who did not view the photo-shopping process would report higher scores of body image cognitive distortions than participants who viewed the photo-shopping process. This hypothesis was not supported as there were no significant differences between the scores of participants who viewed the photo-shopping process and participants who only viewed the final product of the photo-shopping process. Past research has reported that exposure to media depicting the thin-ideal is linked to body dissatisfaction among women (Birkeland, Thompson, Herbozo, Roehrig, Cafri, & van den Berg, 2005; Grabe et al, 2008; Groesz et al., 2001; Halliwell & Dittmar, 2004; & Tiggemann, 2003), thus it could be assumed that participants who were exposed to images of thin models that had been photo-shopped without being informed of the photo-shopping process would report high scores of body dissatisfaction. However, due to the lack of a difference between scores of participants who were exposed to the thin ideal and the scores of participants who were informed of the photo-shopping process, thus discrediting the thin-ideal, the findings of the present study are not in agreement with previous research. The dissonance between the findings of the present study and those of past research may have been a consequence of preexisting cognitions about the thin ideal held by participants. While previous research has found that exposure to the thin-ideal in media has the potential to lead to body dissatisfaction (Birkeland, Thompson, Herbozo, Roehrig, Cafri, & van den Berg, 2005; Grabe et al, 2008; Groesz et al., 2001; Halliwell & Dittmar, 2004; &

Tiggemann, 2003), other research has stated that exposure to the thin-ideal alone does not necessarily result in body dissatisfaction among women (Posavac et al., 1998). As mentioned previously, Posavac et al. (1998) proposed that body dissatisfaction is a result of an individual's preexisting vulnerability to accepting and internalizing the thin-ideal as reality rather than a result of exposure to the thin-ideal alone. Posavac et al. (1998) also suggested ideas to possibly explain why some women are less likely to internalize the thin-ideal regardless of exposure. For instance, if a woman places more importance on other skills and abilities she has than she does appearance, a discrepancy between her body type and the ideal body type set forth by the thin-ideal would not have an effect on her perceived self-worth, thus internalization of the thin ideal would be unnecessary (Posavac et al., 1998). Perhaps participants' determinants of self-worth align with those proposed by Posavac et al. (1998), resulting in a participant population who had not internalized the thin-ideal prior to the exposure to photo-shopped images manipulated within the present study.

Finally, it was hypothesized that participants who did not view the photo-shopping process would report scores indicative of higher levels of body image cognitive distortions after viewing the final product of photo-shop in comparison to their own scores prior to viewing photo-shopped images. This hypothesis was not supported as the average score of body image cognitive distortions that participants who did not view the photo-shopping process reported before exposure to photo-shopped images were virtually identical to the average score reported after exposure to photo-shopped images. As mentioned before, while past research has suggested that exposure to the thin-ideal can result in higher levels of body dissatisfaction (Birkeland, Thompson, Herbozo, Roehrig, Cafri, & van den Berg, 2005; Grabe et al, 2008; Groesz et al., 2001; Halliwell & Dittmar, 2004; & Tiggemann, 2003), other research has argued that exposure

to the thin-ideal itself is not enough to cause an increase in body dissatisfaction (Posavac et al., 1998). Therefore, it can be assumed that participants' scores of body dissatisfaction did not significantly differ before and after exposure to the thin-ideal for the same reasons that produced no significant differences between the scores of participants who viewed the photo-shopping process and the scores of participants who did not view the photo-shopping process. It is likely that participants in the present study had not internalized the thin-ideal prior to viewing the photo-shopped images, thus exposure to the thin-ideal did not have an effect on their level of body satisfaction (Posavac et al., 1998). Another plausible explanation as to why there was no significant difference in participants' scores before and after exposure to the photo-shopped images depicting the thin-ideal is the highly reliable psychometric properties of the measure by which scores of body dissatisfaction were obtained. The present study employed parallel versions of the Assessment of Body-Image Cognitive Distortions (ABCD) developed by Jakatdar et al. (2006) to measure participant body dissatisfaction; Form A was used as the pre-exposure measure of body dissatisfaction while Form B was used as the post-exposure measure of body dissatisfaction. Jakatdar et al. (2006) found Cronbach's alphas to be 0.93 and 0.94 for Form A and Form B, respectively; furthermore, no significant differences between the means of the parallel forms of the ABCD were reported. The reliability analyses conducted by the present study revealed similar findings of Cronbach's alphas of 0.93 and 0.96 for Form A and Form B of the ABCD, respectively. Hence, given the correspondence between the psychometrics reported by Jakatdar et al. (2006) and the present study, it can be surmised that the extremely high internal consistency of the parallel forms of the ABCD may have outweighed the effects of the exposure to the thin ideal.

Descriptive analyses were conducted for exploratory purposes. Results supported initial predictions about body type discrepancies as nearly three fourths of participants reported a discrepancy between their perceived body type and ideal body type. These results concur with past research that has reported nearly half of young women experiencing some degree of body dissatisfaction (Bearman et al., 2006; Grabe et al., 2008; & Posavac et al., 1998); some researchers went as far as to refer to body dissatisfaction among women as a “normative experience” (Brown & Dittmar, 2005; Groesz et al., 2001).

Moreover, of the discrepant participants, 75% endorsed an ideal body type that was thinner than their own. These results can be explained by means of the internalization of the thin-ideal perpetuated by the media. Lakoff and Scherr (1984) asserted that females often rely on the media to acquire a standard of beauty. In assuming that this assertion is valid while taking into account the vast overrepresentation of the thin-ideal in various forms of media (Grabe et al., 2008; Wiseman et al., 1992), it could be inferred that females often equate thinness with beauty. Females that do equate thinness with beauty are likely to eventually set goals for their personal appearance based on the impossibly thin standards of beauty depicted within the media; internalization of the thin-ideal is usually a result of such goals being set. Therefore, when keeping in mind the common equation of thinness with beauty and internalization of the thin-ideal, it is unsurprising that the majority of participants in the present study reported a desire to be thinner.

Continuing with the theme of a desire to be thin, results also revealed that over 80% of all participants reported preferring a body type that fell into a category that was either underweight or the lowest normal weight; these results can also be explained by means of internalization of the thin-ideal. Wiseman et al. (1992) found that the average weight of models depicted in the

media was 5% lower than the diagnostic criteria for Anorexia Nervosa as set forth by the DSM-5. Consequently, if women are internalizing a societal standard of beauty that so incredibly thin, it is not inconceivable that the participants of the present study reported low weight and underweight body types as an ideal body type.

Despite findings the present study contributed to the preexisting body of research on the relationship between body dissatisfaction, eating pathology, and the media, there are limitations that should be addressed in future research. The two largest limitations of the present study were methodological in nature. The first methodological limitation was the administration of self-report measures that assessed sensitive topics in the presence of the researcher. While participants were assured that their responses regarding body image and eating behaviors would be kept completely confidential, it is possible that some participants may have felt uncomfortable disclosing such information, especially while the researcher was in the room. The researcher's presence may have acted as a confounding variable, resulting in more conservative participant reports of body dissatisfaction and eating pathology. This limitation provides an explanation as to why some of the present study's findings did not agree with that of previous research.

Another methodological limitation of the present study was an overly weak manipulation of exposure to the thin-ideal. All participants were exposed to 7 or fewer photos of models, exposure to each photo lasting no longer than 5 seconds. Perhaps if the manipulation of exposure to the thin-ideal were stronger, significant main effects for condition and time would have reported.

Another limitation of the present study was the sample size. Although the present study's sample size normal at $N > 30$, it would have been ideal to have a larger number of participants,

thus increasing the sample size. If more students had been recruited for participation in the present study, different and perhaps more significant results may have been found.

One final limitation to be mentioned of the present study was the overwhelming number of Caucasian participants. Because roughly 89% of participants were Caucasian, it is impossible to gain an accurate understanding of the relationship between body dissatisfaction, eating pathology, and the media among all college aged women. The lack of other ethnic representation among the present study's participants also makes it impossible to generalize the present study's findings to other culturally diverse populations.

After examining the previously discussed findings and limitations, it would be beneficial to expand the present study in a few ways. First, it would be interesting to replicate the present study with data collection occurring via online survey rather than in person. Upon doing this, results of the present study could be compared to results of data collected online to examine whether or not the preexisting measures would continue to yield such modest reports of body dissatisfaction and eating pathology.

Secondly, it would be worthwhile to introduce a stronger manipulation of exposure to the thin-ideal in future research. A stronger manipulation of exposure to the thin-ideal could be accomplished by incorporating more images of photo-shopped models while extending the exposure time from 5 seconds to 10 seconds per image. It would also be interesting to provide information about photo-shopping alongside the process. In doing this, the unreality of the final images would be reinforced which could be helpful especially if the participants viewing the photo-shopping process had previously internalized the thin-ideal.

A final extension of the present study by means of future research would be the recruitment of a larger number of participants that are more ethnically diverse. This could be made possible by having a participant recruitment and data collection period spanning at least six months by means of an online survey. In order to ensure a large sample size, perhaps the researcher could provide monetary compensation, such as a gift card, alongside the easy access to online participation. By utilizing an online survey to recruit participants and collect data, individuals outside of Lynchburg College could participate in future research; this in itself would most likely result in a more even number of participant ethnicities, as the Lynchburg College student population is not diverse with roughly 73% Caucasian students. By increasing the number of and increasing the diversity of participants, results from future research could show an accurate representation of the relationship between eating pathology, body dissatisfaction, and the media among college aged-women.

Overall, the present study yielded some very interesting findings that help readers to better understand the relationship between body image, eating habits, and the media exposure among college aged-women. The present study found that while brief exposure to the thin-ideal did not necessarily result in higher levels of body dissatisfaction as predicted, there was an undeniable relationship between body dissatisfaction and eating pathology among college-aged women. The positive correlation that the present study discovered between high levels of body dissatisfaction and high levels of eating pathology suggests that the relationship between the two may be reciprocal in nature. With body dissatisfaction now being deemed as a “normative experience” (Brown & Dittmar, 2005; Groesz et al., 2001) among females, the possibility of body dissatisfaction and eating pathology being interrelated is especially alarming as this suggests that eating pathology may, too, become a normative experience for females. The results

of the present study offer a new perspective on how cognitive distortions of body image have the potential to perpetuate further pathology among females.

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Appendix A

Eating Attitudes Test

1. I am terrified about being overweight.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

2. I avoid eating when I am hungry.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

3. I find myself preoccupied with food.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

4. I have gone on eating binges where I feel that I may not be able to stop.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

5. I cut my food into small pieces.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

6. I am aware of the calorie content of the foods I eat.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

7. I particularly avoid food with a high carbohydrate content (i.e. bread, rice, potatoes, etc.).

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

8. I feel that others would prefer if I ate more.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

9. I vomit after I have eaten.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

10. I feel extremely guilty after eating.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

11. I am occupied with a desire to be thinner.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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12. I think about burning up calories when I exercise.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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13. Other people think that I am too thin.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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14. I am preoccupied with the thought of having fat on my body.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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15. I take longer than others to eat my meals.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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16. I avoid foods with sugar in them.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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17. I eat diet foods.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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18. I feel that food controls my life.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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19. I display self-control around food.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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20. I feel that others pressure me to eat.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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21. I give too much time and thought to food.

Never 1	Rarely 2	Sometimes 3	Often 4	Usually 5	Always 6
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22. I feel uncomfortable after eating sweets.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

23. I engage in dieting behavior.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

24. I like my stomach to be empty.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

25. I have the impulse to vomit after meals.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

26. I enjoy trying new, rich foods.

Never	Rarely	Sometimes	Often	Usually	Always
1	2	3	4	5	6

Appendix B

Assessment of Body-Image Cognitive Distortions – Form A

Please use the following response scale to indicate your answers: How characteristic is each thought pattern of your thinking?

27. Imagine that on a particular day, you develop a few acne “zits” on your face. Would you think, “These zits make my face really ugly”?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

28. Imagine that on a certain day your hair doesn’t look “right.” Would you think, “I look awful today”?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

29. Imagine that you leave for work or school one morning feeling that you don’t look quite as good as you usually do. Would you think, “I really look terrible today”?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

30. Imagine that you’re flipping through a magazine that has pictures of very attractive models of your gender. Would you compare your looks to theirs and think that you don’t look very good?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

31. Imagine you see yourself and a group of friends and acquaintances in a photograph. Would you compare yourself with whomever looks best in the picture?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

32. Imagine that you’re with friends who are discussing what certain other friends look like. Would you privately begin to think about what’s “wrong” with your own physical appearance?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

33. Imagine that you’re getting ready to go out and you’re looking at your appearance in the mirror. Would you ignore looking at or thinking about your best features?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

34. When you think about the aspects of your appearance with which you’re dissatisfied, do you think that most people also dislike those aspects of your looks?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

35. Imagine that you’re exercising in a fitness class. Would you be convinced that those people that are watching you are doing so because they’re noticing some flaw in your body as you exercise?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
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36. Think about those aspects of your appearance that you've wished were different. Do you ever think that your future will be less satisfying because of how you look?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
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37. Imagine that you're single and down on your luck about dating. Would you think, "As long as I look as I do, no one will ever fall in love with me"?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

38. Imagine that at work or school you have to give a speech. Would you think that because of your looks your speech won't go over very well?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

39. Imagine that you're single and go out on a blind date. You both seem to have a pretty good time. Your date says, "I'll call you in a couple of days", but never does. Would you think, "My looks probably messed things up"?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

40. Imagine that you're out with a group of people you don't know very well. You notice that some of these people are very friendly with others but not with you. Would you think that the reason they weren't attentive to you had something to do with your appearance?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

41. Imagine that you're shopping for some new clothes. Do you talk yourself out of trying certain attractive styles or colors because they might call attention to parts of your body you don't like?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

42. Imagine that you're single and are dating someone you really like. Would you think that there are some "undesirable" parts of your body that you should hide from your partner?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

43. Imagine that you're stressed out one day. Would you be more likely to have negative thoughts about your looks?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

52. Imagine that you're wearing a new outfit and no one comments on it. Would you assume that people think the outfit doesn't look good on you?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

53. Imagine that your lover shows little interest in making love with you for a few weeks. Would you think that the reason for the disinterest is because your partner thinks you're physically unappealing in some way?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

54. Imagine that you get a different haircut and no one comments on it. Would you assume that people probably don't like it?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

55. Imagine that you've moved to a different area and are interested in meeting new friends. Would you have thoughts that your physical appearance could lead people to reject you as a possible friend?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

56. Imagine that you're invited to a party on the beach. Would you think that because of something about your appearance you probably won't fit in or enjoy participating?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

57. Imagine that you're single, go to a party, and meet someone you find attractive. This person leaves with another nice-looking person at the end of the night. Would you think, "My looks probably weren't good enough"?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

58. Imagine that you want to work out at a gym. Would you think that you need to look more fit before you can workout in front of others?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

59. Imagine that you had a large meal and feel overly full. Would your feeling full make you think you're fat?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

60. Imagine that you begin to think about one of your physical characteristics that you dislike. Would your thoughts then turn to other physical characteristics with which you're dissatisfied?

Not at all like me 0	Slightly like me 1	Moderately like me 2	Mostly like me 3	Exactly like me 4
-------------------------	-----------------------	-------------------------	---------------------	----------------------

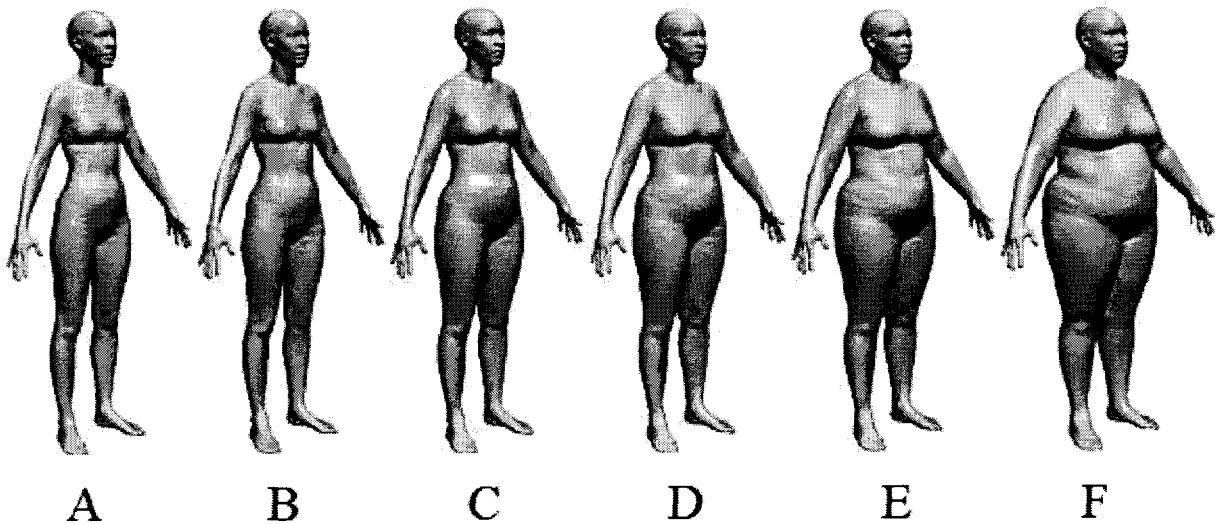
61. Imagine that you have a new haircut and aren't particularly happy about how it looks. Would you have critical thoughts about other aspects of your appearance, as well?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

62. Imagine that some neighbors drop by unexpectedly and you have not yet worked on your appearance for the day. Would you think, "I can't answer the door and let them see me like this"?

Not at all like me	Slightly like me	Moderately like me	Mostly like me	Exactly like me
0	1	2	3	4

Appendix C



1. Please indicate the letter of the body type (from above) you think looks most like you.

2. If you could choose to look like any of the body types above, which would you choose? (Note, this may or may not be the same letter you chose for number one.) _____
3. What is your height? _____
4. What is your weight? _____
5. What is your age? _____
6. What is your class standing? (please circle) Freshman / Sophomore / Junior / Senior
7. What is your ethnicity? (please circle) African American / Caucasian / Latino / Pacific Islander / Other

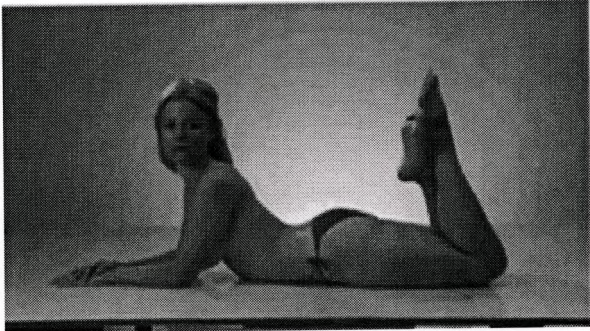
Appendix D

PowerPoint Presentation A – Slide 1

Sense of Self in College Aged Women

PSYC 397 Lyndsay Greene

PowerPoint Presentation A – Slide 2



BEFORE



THINNER ARMS

PowerPoint Presentation A – Slide 3



BEFORE



ELONGATED THIGHS

PowerPoint Presentation A – Slide 4



BEFORE



AFTER

PowerPoint Presentation A – Slide 5



BEFORE



AFTER

PowerPoint Presentation A – Slide 6

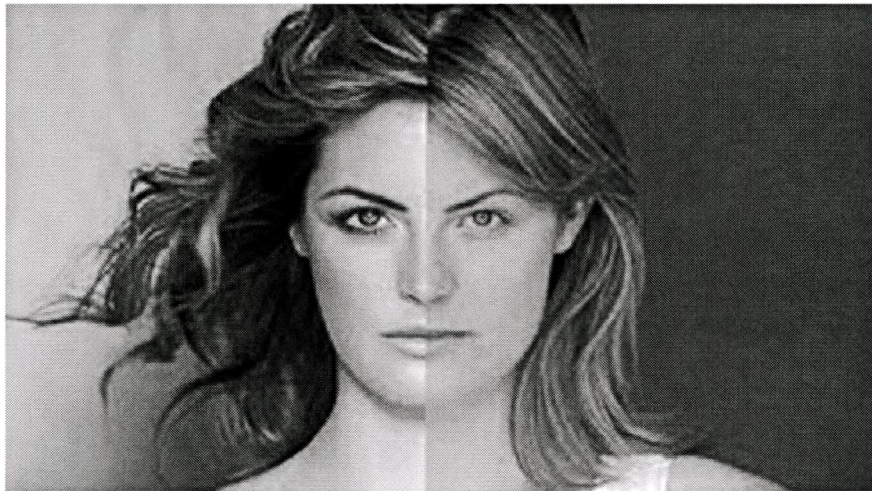


Before

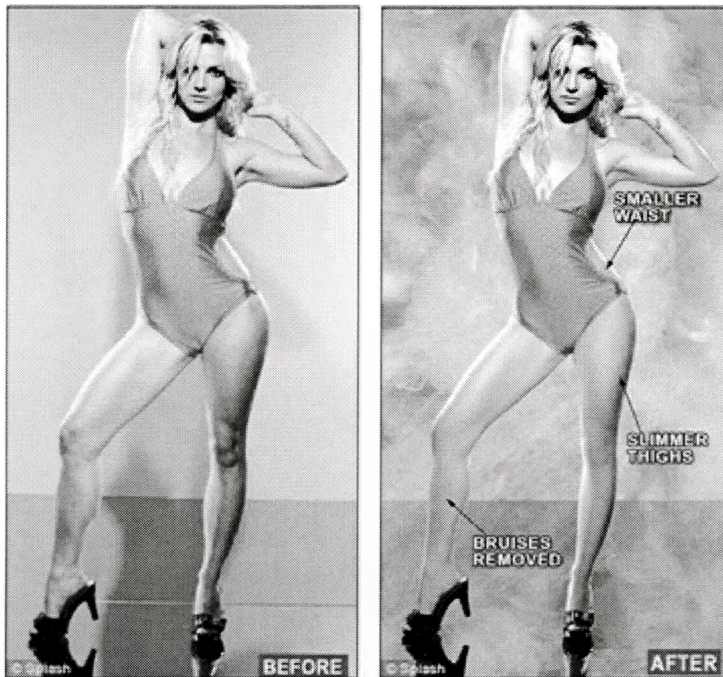


After

PowerPoint Presentation A – Slide 7



PowerPoint Presentation A – Slide 8



Brave move: Britney Spears has allowed airbrushed images from her shoot to be released along with the original raw photos which show all her imperfections

Appendix E

PowerPoint Presentation B – Slide 1

Sense of Self in College Aged Women

PSYC 397 Lyndsay Greene

PowerPoint Presentation B – Slide 2



PowerPoint Presentation B – Slide 3



PowerPoint Presentation B – Slide 4



PowerPoint Presentation B – Slide 5



Appendix F

Experiment Sign-Up Sheet

Name of Experiment: Sense of Self in College Aged Women

Brief Description: Participants will be asked to complete a brief questionnaire about eating habits and body image perceptions and view a series of photos of a model .

Experimenter:

Lyndsay Greene, greene_l@students.lynchburg.edu

Date: _____

Time: _____

Room: _____

Duration: 20 minutes

Persons under the age of 18 are not permitted to participate

First & Last Initial

1. _____

9. _____

2. _____

10. _____

3. _____

11. _____

4. _____

12. _____

5. _____

13. _____

6. _____

14. _____

7. _____

15. _____

8. _____

Appendix G

Oral Script

“Good morning/afternoon everyone. Thank you for coming and participating in my study. In this study, you will be given a packet containing a consent form and a packet containing 69 questions. This study will assess your eating habits and body image attitudes.

“The consent form will be read, signed, and handed in to the researcher before continuing with the rest of your packet. You will also receive a copy of the consent for your reference. By signing the consent form you are assuring the research staff that you are 18 years or older. If you are younger than 18, please discontinue your participation in this study at this time.

“You will respond to the first 51 questions, close your packet and be shown several pictures of print models; you will then complete the remaining 18 questions and hand your completed packet to the me. I will thank you for your participation and you will leave with the debriefing form.

“Your participation in this study is completely voluntary and if you do not wish to continue, you may leave at any time. Your completed assessments will be anonymous and will only be used for the purposes of this research study. The topics within this study, such as weight, body image and eating habits may sensitive subjects. If for any reason you feel uncomfortable and wish to cease your participation in the study, you may turn in your materials to the researcher and leave – you may do this during or after the study. There is no compensation for participating in this study; again your participation is completely voluntary. However, should you be currently enrolled in a Lynchburg College introductory psychology class, your instructor may give you two extra credit points for your participation in this study. My contact information can be found on your debriefing sheet along with the contact information of my primary investigator, Dr. Alisha Marciano. If you wish, you may also contact the Chair-person of the Institutional Review Board, Dr. Sharon Foreman Kready, kready.s@lynchburg.edu.”

Appendix H

Informed Consent Agreement

Please read this consent agreement carefully before you decide to participate in the research study.

Project Title: Sense of Self in College Aged Women

Purpose: The purpose of this research study is to gather information about college aged women's eating habits and sense of self.

Participation: You are being asked to participate in this study because you are a female Lynchburg College student that is at least 18 years of age. This study will take place in a classroom on Lynchburg College's campus. You will be asked to complete a packet of 69 questions regarding personal information, eating habits and/or body-image.

Time Required: Your participation is expected to take about 20 minutes.

Risks & Benefits: The potential risks associated with this study are feelings of discomfort brought on by disclosing your weight, eating habits and perceptions of body image. If you feel that you are experiencing distress as a result of this experiment, please visit the Lynchburg College Health and Counseling Center, located in Hundley Hall on the terrace level or call the center at 434-544-8616.

The study has no anticipated direct benefits to participants; however the study is expected to benefit science and society by providing information on a topic that currently has little research.

Compensation: You will not receive any compensation for your participation in this study.

Voluntary Participation: Please understand that participation is completely voluntary. You have the right to refuse to participate and/or answer any question(s) for any reason, without penalty. You also have the right to withdraw from the research study at any time without penalty. If you want to withdraw from the study please tell the researcher. The researcher has the right to end subject participation if the individual is being disruptive to others or is not participating fully in this study. Two points of extra credit for PSYC 104 or PSYC 106L are being provided as an incentive, however, students will not be penalized if they do not participate and an alternative non-research extra credit opportunity from your professor is available for the same extra credit amount.

Confidentiality: Your individual privacy will be maintained throughout this study by Lyndsay Greene. In order to preserve the confidentiality of your responses, you have been assigned a participant number. When the study is completed and the data have been analyzed, the list will be destroyed. Your initials will not be used in any report or oral dissemination. Signed informed consent agreements, research data, sign-up sheets, and any codes linking research data with subject names will be kept for three years in a locked cabinet located in Irene Sterne's office in the Psychology building on Lynchburg College's campus under the care of Dr. Alisha Marciano.

Whom to Contact with Questions: If you have any questions or would like additional information about this research, please contact the researcher, Lyndsay Greene, at greene_l@students.lynchburg.edu or Dr. Alisha R. Walker Marciano at Marciano.a@lynchburg.edu. The Lynchburg College Institutional Review Board (IRB) for Human Subjects Research has approved this project. This IRB currently does not stamp approval on the informed consent/assent documents; however, an approval number is assigned to approved studies – the approval number for this study is _____. You may contact the IRB Director and Chair, Dr. Sharon Foreman-Kready, through the Office of the Associate Dean for Academic Affairs at Lynchburg College at 434.544.8327 or irb-hs@lynchburg.edu with any questions or concerns related to this research study.

Agreement: I understand the above information and have had all of my questions about participation in this research study answered. By signing below I voluntarily agree to participate in the research study described above and verify that I am 18 years of age or older.

Signature of Participant _____

Date _____

Printed Name of Participant _____

Signature of Researcher _____

Date _____

Printed Name of Research _____

You will receive a copy of this form for your records.

Appendix I
Debriefing Form

Title: Sense of Self in College Aged Women

Statement of thanks: Thank you for taking the time to participate in my experiment.

Summary of study: The purpose of this study is to see if media has an impact on college aged women's perception of self and if there is a relationship between this sense of self and eating habits. During this study, you provided information about your current Body Mass Index, the body type you identify with most, as well as the association between your eating habits and body image perceptions by means of a Likert scale.

Whom to contact for more information: If you have any questions regarding this study or are interested in its findings you may contact any of the following personnel:

Primary Investigator: Dr. Alisha Marciano, Marciano.a@lynchburg.edu

Student Researcher: Lyndsay Greene, greenel@students.lynchburg.edu

Director, IRB: Dr. Sharon Foreman-Kready, IRB-HS@lynchburg.edu

Available help: If you become upset or uncomfortable thinking about what you did as part of your participation in this study or if you would like to talk with a qualified professional about eating disorders, body image and other topics related to this study, then you are encouraged to visit or contact the Lynchburg College Health and

Counseling Center, located in Hundley Hall on the terrace level or call the center at 434-544-8616 or visit the following website for more information on eating disorders and body image concerns, <http://www.nationaleatingdisorders.org/index-handouts>.

Thank you again for your participation.

Investigator:

Student Investigator: Lyndsay Greene, greenel@students.lynchburg.edu

Appendix J

Name of Research Study: *Sense of Self in College Aged Women*

Researcher: Lyndsay Greene

Extra Credit Amount: 2 points

Participant Name: _____ Date: _____

Researcher Signature: _____ Date: _____

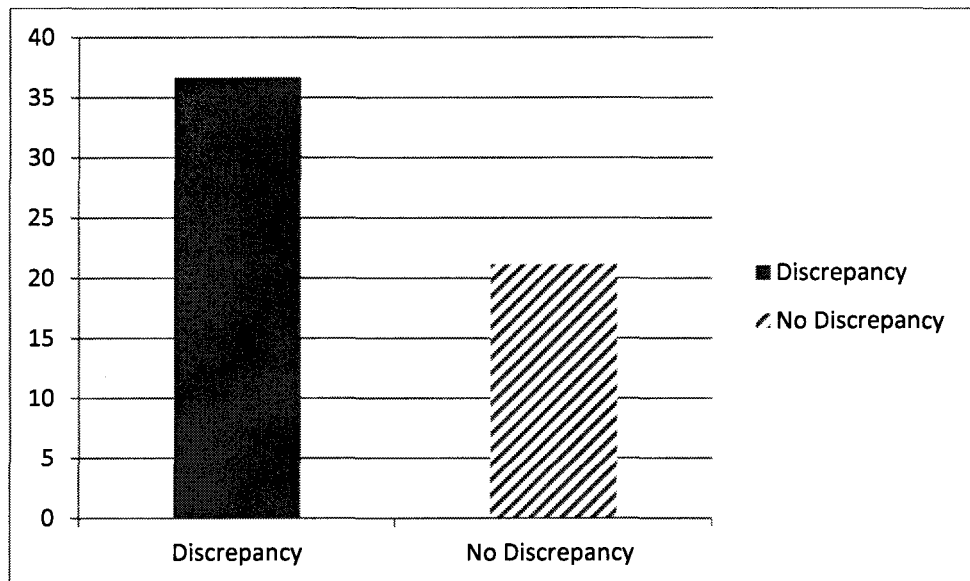


Figure 1. Participant Assessment of Body-Image Cognitive Distortions score as a function of discrepancy between perceived body type and ideal body type.

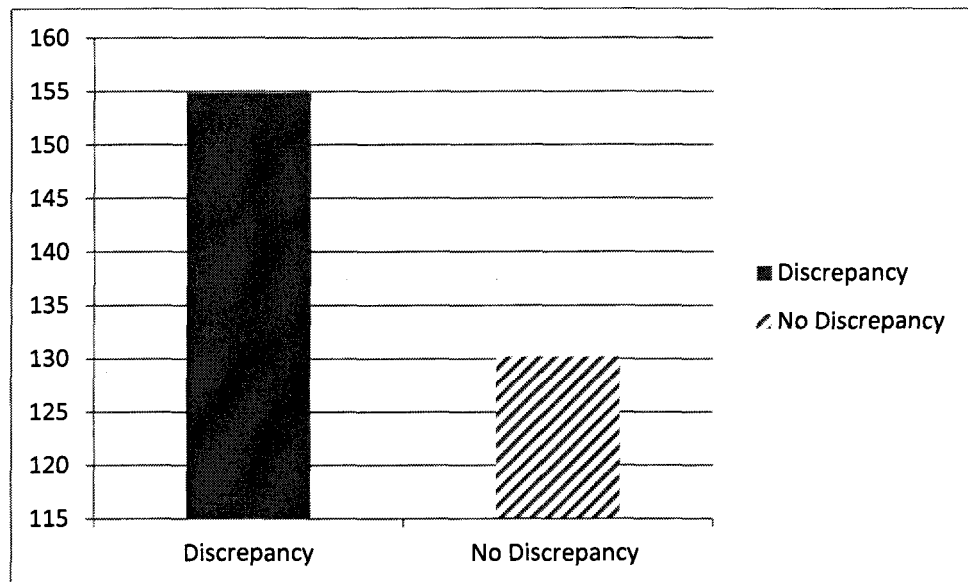


Figure 2. Participant average weight as a function of discrepancy between perceived body type and ideal body type.