

4-2014

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Anna K. Hochgraf
College of William and Mary

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Recommended Citation

Hochgraf, Anna K., "The Skinny on Regulating Media Images to Prevent Eating Disorders" (2014). *Undergraduate Honors Theses*. Paper 22.
<https://scholarworks.wm.edu/honorstheses/22>

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The Skinny on Regulating Media Images to Prevent Eating Disorders

Anna K. Hochgraf

The College of William and Mary

Abstract

The current study examines the effectiveness of a large-scale policy mandating disclaimers on media images that promote the thin ideal of beauty in reducing body image concerns and disordered eating behaviors among college-aged women. Participants were 97 female college students from a diverse range of ethnic backgrounds (67% white/Caucasian). Participants were randomly assigned to either the disclaimer or the control condition. In the disclaimer condition, participants viewed a set of magazine images of the thin ideal with disclaimers with the statement: "Caution: This image has been digitally altered to change the subject's appearance. This is not an accurate representation of the subject's shape and/or weight." In the control condition, participants viewed an identical set of magazine images without the disclaimers. Levels of thin ideal internalization, social comparison, body dissatisfaction, drive for thinness, and self-esteem were measured before and after the experimental manipulation. Between-samples t-tests revealed no significant differences in levels of the dependent variables between the conditions at baseline and post-manipulation. Paired-samples t-test that measured changes within conditions from baseline to post-manipulation revealed significant decreases in self-esteem in both conditions and significant increases in thin ideal internalization in the disclaimer condition. Participants who scored higher than the norm for college students on a standard measure of disordered eating behavior and body image concerns demonstrated significant increases in thin ideal internalization and significant decreases in self-esteem from baseline to post-manipulation. The main implications of the study are that viewing media images of the thin ideal differentially affects women at high risk for eating disorders, and disclaimers are likely not an effective means to prevent body image concerns and disordered eating behaviors associated with viewing images of the thin ideal.

The Skinny on Regulating Media Images to Prevent Eating Disorders

Disordered eating pathology is common among female college students in the United States, with 4% - 9% being diagnosed with a clinical eating disorder and 34% - 67% endorsing symptoms of eating disorders, particularly pathological body image concerns (Fitzsimmons-Craft et al., 2011). Eating disorders encompass a range of pathological behaviors and attitudes related to weight, shape, and food. Pathological body image concerns are elevated weight and shape concerns that predict the onset of eating disorders (Stice, 2002). These behaviors and attitudes merit attention because eating and body image concerns result in high levels of impairment in physical, mental, and social health (Vannucci et al., 2012). The current study examines the potential efficacy of an emerging policy aimed at reducing these concerns, namely the inclusion of disclaimers on retouched media images that promote the thin ideal of beauty. Recent studies suggest that this broad level approach may be an effective large scale prevention strategy for pathological body image concerns and disordered eating among women (Slater, Tiggemann, Firth, & Hawkins, 2012).

According to sociocultural theories of eating disorders, women develop body image concerns and disordered eating behaviors in response to overwhelming societal pressure to be thin. This standard for female attractiveness is often referred to as the “thin ideal” of beauty. Women are constantly bombarded with images and messages that support the thin ideal, as it is pervasive in magazines, television shows, movies, advertisements, books, and the internet, and is a frequent topic of conversation. This constant exposure leads many women to internalize the thin ideal and aspire to embody it, even though the weight and shape of the thin ideal would be nearly impossible for most women to achieve (Fitzsimmons-Craft et al., 2011). Research has

found that women weigh considerably more than the body weight that they perceive to be ideal, the body weight women believe men consider the most attractive, and the body weight that they believe other women consider ideal (Barnett, Keel, & Conoscenti, 2001).

The mass media has been scrutinized for its role in promoting the thin ideal and contributing to body image concerns and disordered eating among women. Content analyses of television shows, movies, and magazines indicate that many females depicted in the media weigh considerably less than the average American woman, and that the average weight of women in the media has been decreasing over time (Fouts & Burggraf, 1999; Silverstein, Purdue, Peterson, & Kelly, 1986). Meta-analyses conclude that exposure to images of the thin ideal in the media is associated with body dissatisfaction and disordered eating behaviors among women (Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2001). There is also substantial evidence that media exposure to the thin ideal evokes increased drive for thinness, negative mood and affect, and decreased self-esteem (Dalley, Buunk, & Umit, 2009; Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2001; Hausenblaus et al., 2013; Stice, Schupat-Neuberg, Shaw, & Stein, 1994; Stice & Shaw, 1994; van den Berg et al., 2007). Researchers have also found that women with elevated levels of pathological body image concerns and disordered eating behaviors are differentially affected by viewing images of the thin ideal. Yamamiya, Cash, Melnyk, Posavac, and Posavac (2005) found that women with elevated levels of thin ideal internalization demonstrated lower body dissatisfaction following exposure to magazine images of ultra-thin models compared to women with low levels of thin ideal internalization. Ferguson (2013) conducted a meta-analysis of media effects on body image concerns and eating disorder symptomology in males and females, and found that women with pre-existing body dissatisfaction were more susceptible to the effects of viewing images of the thin ideal; they

demonstrated greater increases in body dissatisfaction following exposure than women without pre-existing body image concerns. Together, this research suggests that the media is a strong proponent of an unrealistically thin standard of beauty and exposure to this thin ideal contributes to body image concerns and disordered eating among women, particularly those with pre-existing pathological body image concerns and eating disorder symptoms.

Sociocultural theories also provide a compelling explanation of the process by which women develop body image concerns and disordered eating in response to societal pressure to be thin. Social comparison theory purports that people are driven to assess various aspects of themselves and often accomplish this by comparing themselves to others. Furthermore, individuals choose objects of social comparison based on how similar they are to themselves in relevant ways (Festinger, 1954). For example, a child who would like to judge her running ability would likely compare her speed to the speed of other children her age, not to the speed of a seasoned Olympic athlete. When applied to explain the effects of viewing media images of the thin ideal on female body image concerns and disordered eating, social comparison theory suggests that when viewing images of the thin ideal, women engage in a social comparison process in order to judge their own appearance (Tiggemann & McGill, 2004; Tiggemann & Polivy, 2010; Tiggemann, Polivy, & Hargreaves, 2009; van den Berg, et al., 2007). Women who engage in such comparisons often perceive discrepancies between their bodies and the thin ideal, and these perceived discrepancies result in body image concerns (Dalley et al., 2009; van den Berg, et al., 2007). Disordered eating often emerges as women with body image concerns attempt to alter their weight or shape through dieting or other unhealthy weight loss strategies, and may develop into an eating disorder (Stice, 2002).

Social comparison theory also offers an explanation for why women's magazines in particular evoke body image concerns, disordered eating, and other aforementioned psychological disturbances among females. Photo-editing techniques used to make images of women in fashion magazines and advertisements appear more visually appealing and congruent with the thin ideal of beauty exacerbate discrepancies between actual women's bodies and the standard of beauty promoted in Western society. Photo-editing techniques are used to create the illusion that women appearing in advertisements and magazines have thin and toned bodies with ideally proportioned body parts (Kee & Farid, 2011; Metzmacher, 2008). Such photo editing techniques are widely used, and media consumers do not necessarily recognize when images have been retouched (Kee & Farid, 2011). This inability to distinguish digital fabrication from reality may partially account for the links between viewing images of the thin ideal in magazines and body image concerns, negative affect, and disordered eating behaviors.

With this in mind, there have been recent efforts to regulate the use of photo editing techniques on media images through legislation and policy changes (e.g., limits on airbrushing, placing disclaimers on digitally altered images) in the United Kingdom, France, Australia, Israel, and the United States. The American Medical Association has endorsed the view that guidelines should be established for the use of digitally altered images in advertising in order to avoid promoting unrealistic standards of beauty to children and adolescents (American Medical Association, 2011). One policy under consideration in several countries and already adopted in Israel stipulates that fashion magazines must disclose when images in magazines and advertisements have been altered to make models appear thinner than they actually are (Lis & Shalev, 2012; Siczkowski, 2012). This disclosure is achieved by placing a notice on the image that explicitly states that the image has been digitally altered to make the model appear thinner

(Associated Press, 2012). This policy is intended to help magazine consumers, especially females, recognize that the digitally altered images of models featured in magazines and advertisements are not realistic representations of humans and are not appropriate objects for social comparison. Disclaimers are expected to increase awareness that the standard of beauty portrayed in magazines and advertisements is unattainable without photo editing software. Even models, whose job it is to be attractive, have imperfections and are routinely retouched with photo editing software. The disclaimers are intended to discourage women from comparing themselves to images of the thin ideal, perceiving discrepancies, and then developing body image concerns and disordered eating behaviors. The ultimate goal of this policy is to reduce the incidence of pathological body image concerns and disordered eating among women.

As of yet, little research has been conducted to explore whether disclaimers or warning labels actually reduce the impact of viewing media images of the thin ideal on female body image and disordered eating behaviors. Three studies to date have investigated the effects of placing disclaimers or warning labels in fashion magazines to mitigate the harmful effects of viewing images of the thin ideal. Tiggemann, Slater, Bury, Hawkins, and Firth (2013) found that neither general nor specific warning labels that enumerate the ways in which the images have been altered reduce body dissatisfaction associated with exposure to the thin ideal. These results were inconsistent with the earlier findings of Slater, Tiggemann, Firth, and Hawkins (2012), which demonstrated that participants who viewed magazine images of the thin ideal with either generic or specific warning labels exhibited lower levels of body dissatisfaction than the control group. The researchers also found that warning labels had no effect on participants' mood. Ata, Thompson, and Small (2013) examined two different types of labels which they termed "disclaimers" and "warning labels." The disclaimers were intended to provide information and

prevent confusion about the images, and were similar in construction to the labels used in Tiggemann et al.'s (2013) study (e.g., "Retouched photograph aimed at changing a person's physical appearance"). The warning labels were intended to advise caution in viewing the images and warned about potential health risks associated with attempting to conform to the thin ideal (e.g., "Warning: Trying to look as thin as this model maybe dangerous to your health."). Ata et al. (2013) found that neither disclaimers nor warning labels had an effect on body dissatisfaction or intention to diet.

In light of these sparse and inconsistent findings, the present study aims to assess whether the addition of disclaimers to images in fashion magazines can reduce body image concerns and disordered eating behaviors associated with viewing media images of the thin ideal. The present study extends the preliminary research conducted by Slater et al. (2012), Tiggemann et al. (2013), and Ata et al. (2013) by (a) including additional measures of body image pathology, (b) conducting the first assessment of the efficacy of disclaimers in interrupting social comparison processes evoked by viewing images of the thin ideal, (c) conducting a separate analysis of the effects of disclaimers for individuals who endorsed body image and eating disturbances at baseline, and (d) redesigning the proposed disclaimer label. The indicators of disordered eating and body image concerns measured in the present study are: body dissatisfaction, self-esteem, drive for thinness, and thin ideal internalization. A screening measure for eating disorders is also used, which includes subscales that measure eating concern, shape concern, weight concern, and dietary restraint. Unlike previous studies, the current study uses a measure of social comparison to gauge individuals' tendencies to compare their physical appearance with others'. In light of research that suggests that social comparison mediates the relationship between viewing media images of the thin ideal and subsequent onset of body image concerns and disordered eating

behaviors, the measure of social comparison was included to elucidate how disclaimers may work to prevent body image concerns and disordered eating behaviors from occurring.

Previous studies (e.g., Ata et al., 2013; Slater et al., 2012; Tiggemann et al., 2013) may have failed to find an effect for disclaimers or warning labels on body dissatisfaction, mood or intention to diet due to the message, graphic design, and salience of the disclaimers used. Slater et al. (2012) used a subtle disclaimer; a statement in size 10 font, placed consistently on the right side of the page. Tiggemann et al. (2013) used a similar design and message as Slater et al. (2012) but the font was slightly bigger and was placed on either the left or right of the page; whichever would not occlude the image. Ata et al. (2013) put a box around the message and placed the message at the top of the page, on whichever side did not obstruct the image. None of the disclaimers used in the studies by Slater et al. (2012), Tiggemann et al. (2013), or Ata et al. (2013) were designed to be prominent features on the page, and this may have reduced the disclaimers' effectiveness. The three aforementioned studies differed mainly in content of the message itself; Slater et al. (2012) and Tiggemann et al. (2013) compared specific to generic labels, and Ata et al. (2013) compared warning labels to disclaimers. None of these studies used disclaimers that explicitly stated that the images had been retouched and were not realistic representations of the models. It is possible that the messages used in these studies did not prevent participants from engaging in a social comparison process when viewing the images, and therefore the disclaimers did not have the intended preventative effects on increased body dissatisfaction, negative mood, and intention to diet. The present study addresses these issues by redesigning the disclaimer in accordance with findings about effective warning labels for tobacco products and by altering the disclaimer text to explicitly state that the images were retouched and not realistic representations of the models.

For the present study, it was hypothesized that participants who view magazine images of the thin ideal without disclaimers will experience an increase in body dissatisfaction, drive for thinness, and decrease in self-esteem from initial levels. Participants who view magazine images of the thin ideal with disclaimers will experience no change from initial levels of body dissatisfaction, drive for thinness, or self-esteem. Participants who view the images with disclaimers will have lower levels of body dissatisfaction and drive for thinness, and higher self-esteem than the control group post-manipulation. Thin ideal internalization is predicted to be positively correlated with body dissatisfaction, drive for thinness, social comparison, and negatively correlated with self-esteem. Social comparison is expected to be lower in the disclaimer condition than the control condition. The negative effects of viewing magazine images of the thin ideal are expected to be more apparent for participants who score above normative levels on a standard measure of disordered eating attitudes at baseline than those who score at or below the norm for college aged women.

Method

Participants

In order to be eligible to participate, prospective participants were required to be female undergraduate students. Participants consisted of 100 female undergraduate students enrolled at the College of William and Mary. Three students failed to complete both parts of the study (i.e., the baseline survey and the laboratory manipulation and accompanying survey) and were eliminated from analyses. Forty-eight participants were randomly assigned to the experimental condition and 49 participants were randomly assigned to the control condition.

Demographic information was collected to gather participants' demographic information. Eight items were used to obtain data regarding participants' age, year in college, parental education, ethnicity, height, weight, and history of particular mental illnesses including and associated with eating disorders (i.e., anxiety disorder, depression). Participants' ages ranged from 18 to 23 years, with a mean age of 18.57 years and median age of 18 years. Participants were predominately first year students (64%); the median and mode of the distribution of years in college was one year. The most frequently occurring level of education for mothers of participants was college graduate (43%), and the most frequently occurring level of education for fathers of participants was graduate degree (50%). The level of education of participants' parents ranged from less than high school to graduate degree. Participants were primarily Caucasian (67.01%), with 8.25% Latino/Hispanic, 6.19% Indian, 6.19% multiracial/Eurasian/European American, 5.15% African American/Black, 4.12% Chinese/Chinese American, 2.06% Vietnamese, and 1.03% Native American. Participants' heights and weights were used to calculate their respective body mass indices. Out of the 97 participants who completed both parts of the study, one identified as being diagnosed with an eating disorder at an unspecified time, as well as co-occurring anxiety disorder and depression; seven identified as being diagnosed with both anxiety disorder and depression; one identified as being diagnosed with anxiety disorder alone; and six identified as being diagnosed with depression alone.

Design

This study compares differences between experimental and control groups on pre-manipulation and post-manipulation data. The manipulated independent variable was the presence of a disclaimer on the images (no disclaimer, disclaimer). The dependent variables

measured were: body dissatisfaction, self-esteem, drive for thinness, social comparison, and thin ideal internalization.

Apparatus

Two questionnaires were administered to each participant via Qualtrics Online Survey Software.

Measures

Body dissatisfaction.

Participants' pre-manipulation and post-manipulation levels of body dissatisfaction were measured with the Body Dissatisfaction subscale of the Eating Disorder Inventory for Anorexia Nervosa and Bulimia (Garner, Olmstead, & Polivy, 1983). The Body Dissatisfaction subscale consists of nine items. Although the EDI was developed for use with clinical populations, researchers have used it for nonclinical populations with the understanding that the clinical scoring system reduces the variance that would be observed if scoring was done on a continuous 6-point scale, with a score of 1 representing the most extreme anorexic/bulimic response possible on each question (Fitzsimmons-Craft et al., 2012). The scoring system used in the current study assigns a score of 3 for the most extreme anorexic/bulimic response possible, 2 for the adjacent response, 1 for the next response, and 0 for the remaining three responses. The Body Dissatisfaction subscale has been demonstrated to be a valid and reliable measure of female body dissatisfaction, the belief that particular body parts (e.g., hips, buttocks, thighs) are too large (Garner et al., 1983). The current study found the Body Dissatisfaction subscale to be reliable at baseline ($\alpha = .76$) and post-manipulation ($\alpha = .77$).

Drive for thinness.

Pre-manipulation and post-manipulation levels of drive for thinness were measured with the Drive for Thinness subscale of the Eating Disorder Inventory for Anorexia Nervosa and Bulimia (Garner, Olmstead, & Polivy, 1983). The Drive for Thinness subscale consists of seven items, and is scored on a 6-point scale. As with the Body Dissatisfaction subscale, the scoring system used in the current study was the original scale developed for clinical populations. The Drive for Thinness subscale has been shown to be a valid and reliable indicator of preoccupation with dieting, weight, and pursuit of a thin body shape ($\alpha = .85$) (Garner et al., 1983). The current study found the Drive for Thinness subscale to be reliable at baseline ($\alpha = .90$) and at post-manipulation ($\alpha = .93$).

Self-esteem.

Rosenberg's Self-Esteem scale (Rosenberg, 1965) was used to measure participants' global self-esteem. The Self-Esteem scale consists of 10 items, and is scored on a 4-point scale (1 = Strongly disagree, 4 = Strongly agree). Rosenberg's Self-Esteem is a measure of global self-esteem, which is a person's level of self-acceptance or respect (Rosenberg, 1965). The scale was demonstrated to be valid and reliable (Rosenberg, 1965). The current study found Rosenberg's Self-Esteem scale to be reliable at baseline ($\alpha = .90$) and at post-manipulation ($\alpha = .91$).

Thin Ideal Internalization.

Two scales were used to measure thin ideal internalization; the revised Sociocultural Attitudes Towards Appearance Questionnaire (Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) and The Revised Ideal Body Stereotype Scale (Stice & Bearman, 2001). The Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3) measures the degree to which individuals feel pressured by media (e.g., magazines, movies, and television) and athletes to be thin, and the degree to which individuals compare their appearance to people in the media

and athletes (Thompson, et al., 2004). The SATAQ-3 consists of 30 items and is scored on a 5-point scale (1 = Definitely disagree, 5 = Definitely agree). Thompson et al. (2004) have demonstrated the validity and reliability of this scale and have found concordance between the SATAQ-3 measures of body image concerns and disordered eating. In addition, individuals with eating disorders and disordered eating have been reported to score higher on the SATAQ-3 than those without body image and eating disturbances (Thompson et al., 2004). The present study found the SATAQ-3 to be reliable at baseline ($\alpha = .95$) and post-manipulation ($\alpha = .96$). The Revised Ideal Body Stereotype Scale (IBSS-R) is a measure of thin ideal internalization distinct from the SATAQ-3. The IBSS-R reflects internalization of appearance norms for women, in particular the norms that women who are thin, tall, and lean are more attractive (Stice & Bearman, 2001; Thompson & Stice, 2001; Thompson et al., 2004). This scale consists of six items, and is scored on a 5-point scale (1 = Strongly disagree, 5 = Strongly agree). The IBSS-R has been demonstrated to be both valid and reliable (Stice & Bearman, 2001). The current study found the IBSS-R reliable at baseline ($\alpha = .73$) and post-manipulation ($\alpha = .78$).

Social Comparison.

The Physical Appearance Comparison Scale (Thompson, Heinberg, & Tantleff, 1991) was used to measure participants' propensity to compare their physical appearance to others. The Physical Appearance Comparison Scale (PACS) consists of five items and is scored on a 5-point scale (1 = Never, 5 = Always). The PACS has been demonstrated to have internal consistency and test-retest reliability (Thompson, Heinberg, & Tantleff, 1991). The current study found the PACS to be reliable at baseline ($\alpha = .74$) and post-manipulation ($\alpha = .80$).

Eating Disorder Examination.

The Eating Disorders Examination Questionnaire (Fairburn & Beglin, 1994) was used to screen participants for disordered eating attitudes. The Eating Disorders Examination Questionnaire (EDE-Q) has been found to be a valid and reliable self-report method for assessing disordered eating attitudes associated with eating disorders (Fairburn & Beglin, 1994). The Global Scale was used in this study to measure attitudes over the past 28 days related to eating concern, weight concern, shape concern, and dietary restraint. Participants were separated into two groups, the “High Disordered Eating Group” and the “Low Disordered Eating Group,” based on their global mean scores on the EDE-Q at baseline. Participants who scored higher than the norm for college-age women were included in the High Disordered Eating Group and participants who scored at or below the norm were included in the Low Disordered Eating Group for analyses. The normative score used to determine high and low risk groups in the current study was 1.74, the normative global score for college-aged women established by Luce, Crowther, and Pole (2008).

Stimuli

The disclaimer used in the present study was designed in accordance with findings about the design of warning labels on tobacco products in order to increase the likelihood that the disclaimer would be perceived by viewers and taken into consideration when viewing the images of the thin ideal. According to a recent review of the literature on the design of tobacco warning labels, the most effective warning labels are those displayed prominently, with contrasting font and background colors and a distinct border (Hammond, 2011). The disclaimer used in this study was intended to look like a caution sign, because caution signs and the caution symbol command attention and have become widely understood as notices to proceed with prudence. An added advantage of the caution sign design was that it was compatible with key design features of the

most effective tobacco warning labels. The created disclaimer utilized the yellow background, bolded black lettering, and caution symbol typical of caution signs. Below the bolded and all-capital letter word “caution” was the following statement: “This image has been digitally altered to change the subject’s appearance. This is not an accurate representation of the subject’s shape and/or weight.” The entire disclaimer was contained within a bold black border and placed at either the left or right bottom corner of the page. To view an enlarged replica of the disclaimer used in this study, see Appendix C.

Two sets of 26 magazine images were assembled for use in this study. The images were advertisements and photos of females sourced from popular women’s magazines. The sets of images differed only in whether a disclaimer was present on the image. The 26 images chosen as stimuli were selected based on results from a pilot study with research assistants who were well educated about the thin ideal of beauty. Research assistants were asked to complete an online questionnaire in which they indicated the degree to which a total of 35 images of women were representative of the thin ideal by rating each image on a scale of 0 to 100, with 100 as the most representative. Each image selected for inclusion was judged as “Definitely Representative of the Thin Ideal of Beauty” by all research assistants, with a mean score of 80 or above, and a standard deviation of less than 10. The images were scanned and disclaimers were placed in one of the bottom corners of all of the images in the experimental set of images using photo-editing software. The images were printed on glossy paper and bound in folders to imitate the appearance of actual magazine spreads.

Procedure

Upon signing up for the study, participants were directed to a URL link to take the pre-manipulation questionnaire. Participants were permitted to complete the pre-manipulation

questionnaire in their own time, provided that they submitted the questionnaire at least one week before their scheduled laboratory session. This was intended to prevent participants from recalling and reiterating their responses from the pre-manipulation questionnaire on the post-manipulation questionnaire. The lab sessions were conducted in a computer lab. Trained research assistants who were unaware of the nature of the study and study hypotheses administered the lab sessions. Upon arrival at the lab session, participants were given a brief introduction to the study and instructions for the experimental task. Participants were randomly assigned to one of two conditions: the experimental condition, in which the magazine images included disclaimers, or the control condition, in which the magazine images did not have disclaimers. Participants were given 20 minutes to study the set of magazine images presented to them. Participants were instructed to view the images carefully and deliberately, as they would if they were reading their favorite magazine. At the end of the 20 minutes, participants were instructed to follow a link sent to their email accounts containing the post-manipulation questionnaire. Following completion of the post-manipulation questionnaire, participants were debriefed.

Results

Sample Overview

The two conditions did not differ on BMI or race/ethnicity ($ps > .05$). The mean for the entire sample ($n = 86$) on the SATAQ-3 was 3.11 ($SD = 0.36$) at baseline and 3.25 ($SD = 0.81$) at post-manipulation, indicating that on average, participants in this study initially demonstrated medium to high levels of thin ideal internalization, and that these levels increased over the course of the study. The mean for the entire sample ($n = 96$) on the IBSS-R was 3.65 ($SD = 0.53$) at baseline and 3.71 ($SD = 0.59$) at post-manipulation, indicating that on average, participants displayed medium to high levels of thin ideal internalization at baseline and these levels

increased over the course of the study. The mean for the entire sample ($n = 96$) on the PACS was 3.14 ($SD = 0.64$) at baseline and 3.07 ($SD = 0.70$), indicating that on average, participants demonstrated medium levels of social comparison at baseline and post-manipulation. The mean score for the sample ($N = 97$) on the drive for thinness subscale was 4.80 ($SD = 5.01$) at baseline and 4.61 ($SD = 5.32$) at post-manipulation. This indicates that on average, participants in this study demonstrated medium levels of drive for thinness at baseline and post-manipulation. For the body dissatisfaction subscale, low scores represent high body dissatisfaction and high scores represent low body dissatisfaction. The mean sum score for the body dissatisfaction subscale was 9.75 ($SD = 5.58$) at baseline and 9.46 ($SD = 5.73$) at post-manipulation, indicating that on average, participants demonstrated medium levels of body dissatisfaction at baseline and post-manipulation. The mean sum score for the self-esteem scale was 30.19 ($SD = 5.27$) at baseline and 27.7 ($SD = 4.91$) at post-manipulation, indicating that overall, participants in this study had medium levels of self-esteem prior to and following the experiment. See Appendix E for a table displaying the means, standard deviations, and range of all dependent variables at baseline and post-manipulation for the entire sample.

Correlations between Dependent Variables

A Pearson's product-moment correlation revealed statistically significant associations among study variables (thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem). At baseline, thin ideal internalization, measured by the SATAQ-3, was positively correlated with thin ideal internalization, measured by the IBSS-R ($r = .54, n = 86, p = .000$) and social comparison, measured by the PACS ($r = .55, n = 86, p = .000$), drive for thinness ($r = .45, n = 86, p = .000$), and body dissatisfaction ($r = .39, n = 86, p = .000$), and negatively correlated with self-esteem ($r = -.42, n = 86, p = .000$). This means that higher

levels of thin ideal internalization as measured by the SATAQ-3 are associated with higher levels of thin ideal internalization as measured by the IBSS-R, social comparison, drive for thinness, and body dissatisfaction, and lower levels of self-esteem. At baseline, the IBSS-R was positively correlated with the PACS ($r = .29, n = 97, p = .004$) and with body dissatisfaction ($r = .22, n = 97, p = .027$). The IBSS-R was not correlated with drive for thinness ($r = .08, n = 97, p > .05$) or self-esteem ($r = -.10, n = 97, p > .05$). This means that higher levels of thin ideal internalization were associated with higher levels of social comparison and higher body dissatisfaction. At baseline, the PACS was positively correlated with drive for thinness ($r = .40, n = 97, p = .000$) and negatively correlated with self-esteem ($r = -.34, n = 97, p = .001$), indicating that higher levels of social comparison were associated with higher drive for thinness and lower self-esteem. At baseline, body dissatisfaction was positively correlated with drive for thinness ($r = .46, n = 97, p = .000$), indicating that higher levels of body dissatisfaction were associated with higher drive for thinness. At baseline, self-esteem was negatively correlated with drive for thinness ($r = -.32, n = 97, p = .001$) and body dissatisfaction ($r = -.44, n = 97, p = .000$), indicating that low self-esteem was associated with high drive for thinness and body dissatisfaction. The same pattern of correlations between dependent variables was found in the post-manipulation data.

Pearson's product-moment correlation was calculated to determine the stability of associations between baseline and post-manipulation measures of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem; scores from each scale at baseline were positively correlated with scores on the same scale at post-manipulation. The correlations were as follows: social comparison (PACS) ($r = .72, n = 97, p = .000$), thin ideal internalization (IBSS-R and SATAQ-3) ($r = .84, n=97, p = .000$; $r = .88, n = 86, p = .000$),

self-esteem ($r = .94, n = 97, p = .000$), body dissatisfaction ($r = .87, n = 97, p = .000$), and drive for thinness ($r = .89, n = 97, p = .000$).

Comparison Between Non-Disclaimer and Disclaimer Conditions on Pre- and Post- Data

An independent samples t-test revealed no significant differences between control and disclaimer conditions at baseline on thin ideal internalization as measured by the SATAQ-3 and IBSS-R, social comparison as measured by the PACS, drive for thinness, body dissatisfaction, or self-esteem (see Appendix F, Table F1 for results of this t-test.). An independent samples t-test revealed no significant differences between the control and disclaimer conditions at post-manipulation for thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, or self-esteem (see Appendix F, Table F2 for results of this t-test).

A paired samples t-test was used to compare levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem at baseline to post-manipulation levels in the entire sample. Significant differences were found between baseline and post-manipulation levels of thin ideal internalization as measured by the SATAQ-3; $t(85) = -2.48, p = .02$, and the IBSS-R; $t(96) = -1.98, p = .05$, such that participants demonstrated an increase in thin ideal internalization from baseline to post-manipulation. There was a significant difference between levels of self-esteem at baseline ($M = 30.19, SD = 5.27$) and post-manipulation ($M = 27.7, SD = 4.91$); $t(96) = 12.23, p = .000$, indicating that overall, participants experienced an decrease in self-esteem from baseline to post-manipulation. There were no significant changes in levels of social comparison, drive for thinness, or body dissatisfaction. See Table G1 in Appendix G for the full results of this paired samples t-test.

Changes Within Each Condition on Pre- and Post-Manipulation Data

A paired samples t-test was used to compare levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem at baseline with levels at post-manipulation in the control group. Significant differences in levels of self-esteem were found between baseline measurements ($M = 30.31$, $SD = 5.79$) and post-manipulation measurements ($M = 27.69$, $SD = 5.34$), $t(48) = 11.68$, $p = .000$, such that self-esteem decreased from baseline to post-manipulation. There were no significant differences between baseline and post-manipulation levels of thin ideal internalization, social comparison, drive for thinness, or body dissatisfaction in the control group. See Table G2, Appendix G for the full results of this paired samples t-test.

A paired samples t-test was used to compare levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem at baseline with levels at post-manipulation in the disclaimer condition. Significant differences in levels of self-esteem were found between baseline ($M = 30.06$, $SD = 4.74$) and post-manipulation ($M = 27.71$, $SD = 4.49$); $t(47) = 6.87$, $p = .000$, such that on average, participants in the disclaimer group demonstrated an decrease in self-esteem from baseline to post-manipulation. Significant differences in levels of thin ideal internalization as measured by the SATAQ-3 were found between baseline ($M = 3.12$, $SD = 0.36$) and post-manipulation ($M = 3.28$, $SD = 0.80$); $t(44) = -2.07$, $p = .044$, such that participants demonstrated an increase in levels of thin ideal internalization from baseline to post-manipulation. There were no significant changes in levels of social comparison, drive for thinness, or body dissatisfaction.

Effects of the Manipulation for High and Low Disordered Eating Groups

Paired samples t-tests were used to measure changes in the dependent variables from baseline to post-manipulation within the High Disordered Eating Group and within the Low

Disordered Eating Group. The Low Disordered Eating Group demonstrated significant decreases in self-esteem from baseline ($M = 31.3, SD = 5.27$) to post-manipulation ($M = 28.6, SD = 5.04$); $t(68) = 12.9, p = .000$. No significant differences were found between baseline and post-manipulation levels of social comparison, body dissatisfaction, drive for thinness, or thin ideal internalization within the Low Disordered Eating Group. The High Disordered Eating Group also demonstrated significant decreases in self-esteem from baseline ($M = 27.7, SD = 4.47$) to post-manipulation ($M = 25.0, SD = 3.42$); $t(22) = 5.71, p = .000$. Unlike the Low Disordered Eating Group, the High Disordered Eating Group demonstrated significant increases in thin ideal internalization from baseline to post-manipulation on both the SATAQ-3 and IBSS-R measures. On the SATAQ-3, the mean scores for the High Disordered Eating Group increased significantly from baseline ($M = 3.35, SD = 0.24$) to post-manipulation ($M = 3.77, SD = 0.61$); $t(19) = -4.35, p = .000$. On the IBSS-R, the mean scores for the High Disordered Eating Group increased significantly from baseline ($M = 3.77, SD = 0.34$) to post-manipulation ($M = 3.92, SD = 0.44$); $t(22) = -2.49, p = .02$. No significant differences were found between baseline and post-manipulation levels of social comparison, body dissatisfaction, or drive for thinness in the High Disordered Eating Group. For the complete results of these t-tests, see Appendix H.

Between-samples t-tests were used to measure differences between the Low Disordered Eating Group and High Disordered Eating Group at baseline and post-manipulation for thin ideal internalization, drive for thinness, body dissatisfaction, social comparison, and self-esteem. There were significant differences between the Low Disordered Eating Group and High Disordered Eating group on levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem at baseline and at post-manipulation. At baseline, the High Disordered Eating group ($M = 3.35, SD = 0.24$) had significantly higher levels of thin

ideal internalization as measured by the SATAQ-3 than the Low Disordered Eating Group ($M = 3.03$, $SD = 0.359$); $t(79) = -3.81$, $p = .000$. The IBSS-R did not detect significant differences between the Low Disordered Eating Group ($M = 3.65$, $SD = 0.57$) and the High Disordered Eating Group ($M = 3.77$, $SD = 0.34$) in thin ideal internalization at baseline; $t(90) = -1.08$, $p > .05$. The High Disordered Eating group ($M = 3.57$, $SD = 0.563$) had significantly higher levels of social comparison at baseline than the Low Disordered Eating Group ($M = 2.98$, $SD = 0.615$), $t(90) = -4.07$, $p = .000$. The High Disordered Eating Group ($M = 10.09$, $SD = 5.03$) had significantly higher levels of drive for thinness than the Low Disordered Eating Group ($M = 2.71$, $SD = 3.23$) at baseline; $t(90) = -8.18$, $p = .000$. The High Disordered Eating Group ($M = 12.0$, $SD = 5.38$) also displayed significantly higher body dissatisfaction than the Low Disordered Eating Group ($M = 8.72$, $SD = 5.40$) at baseline; $t(90) = -2.55$, $p = .012$. The High Disordered Eating Group ($M = 27.7$, $SD = 4.47$) had significantly lower self-esteem than the Low Disordered Eating Group ($M = 31.3$, $SD = 5.27$) at baseline; $t(90) = -2.89$, $p = .005$. The directions of these findings were similar at post-manipulation. The High Disordered Eating Group ($M = 3.70$, $SD = 0.623$) displayed significantly higher thin ideal internalization (as measured by the SATAQ-3) at post-manipulation than the Low Disordered Eating Group ($M = 3.08$, $SD = 0.771$); $t(90) = -3.46$, $p = .001$. There was a trend toward a significant difference between the Low Disordered Eating Group ($M = 3.65$, $SD = 0.64$) and the High Disordered Eating Group ($M = 3.92$, $SD = 0.44$) on thin ideal internalization (as measured by the IBSS-R) at post-manipulation; $t(90) = -1.85$, $p = .07$. The High Disordered Eating Group ($M = 3.57$, $SD = 0.563$) demonstrated significantly higher levels of social comparison than the Low Disordered Eating Group ($M = 2.98$, $SD = 0.615$) at post-manipulation; $t(90) = -4.18$, $p = .000$. The Low Disordered Eating Group ($M = 8.29$, $SD = 5.65$) demonstrated significantly lower levels of body

dissatisfaction than the High Disordered Eating Group ($M = 12.22$, $SD = 5.14$) at post-manipulation; $t(90) = -2.95$, $p = .004$. The Low Disordered Eating Group ($M = 2.45$, $SD = 3.73$) demonstrated significantly lower levels of drive for thinness than the High Disordered Eating Group ($M = 9.96$, $SD = 5.13$) at post-manipulation; $t(90) = 3.73$, $p = .000$. The High Disordered Eating Group ($M = 25.0$, $SD = 3.42$) had lower levels of self-esteem than the Low Disordered Eating Group ($M = 28.62$, $SD = 5.04$) at post-manipulation; $t(90) = 3.16$, $p = .002$.

Discussion

The primary aim of this study was to assess whether a large scale public policy requiring disclaimers on media images of the thin ideal of beauty would be an effective method of preventing pathological body image concerns and disordered eating behaviors typically associated with viewing images of the thin ideal. Body image concerns and disordered eating attitudes associated with viewing images of the thin ideal include drive for thinness, thin ideal internalization, low self-esteem, and body dissatisfaction. Sociocultural theories of eating disorders have been proposed to explain the link between viewing images of the thin ideal of beauty and subsequent development of body image concerns. Among these sociocultural theories, the theory that social comparison with thin models in magazines and other media outlets mediates this relationship has received support (Fitzsimmons-Craft, 2011). The purpose of placing disclaimers on images of the thin ideal is to reduce women's tendency to compare their bodies to airbrushed images of the thin ideal, and prevent the body image concerns and disordered eating behaviors that typically result from such comparisons. The current study examined levels of social comparison, body dissatisfaction, drive for thinness, self-esteem, and thin ideal internalization prior to and following exposure to images of the thin ideal sourced from popular magazines. Participants in the disclaimer condition viewed a set of images with

disclaimers that warned consumers that the images had been digitally altered and were not accurate representations of the models' shape and/or weight, and participants in the control condition viewed an identical set of images without the disclaimers. The hypotheses for the current study were: (a) participants who viewed magazine images of the thin ideal without disclaimers would experience increases in body dissatisfaction and drive for thinness, and decreases in self-esteem from initial levels; (b) participants who viewed the images with disclaimers would demonstrate lower body dissatisfaction and drive for thinness and higher self-esteem than the control group post-manipulation; (c) thin ideal internalization was expected to be positively correlated with body dissatisfaction, drive for thinness, social comparison, and negatively correlated with self-esteem; (d) social comparison would be lower in the disclaimer condition than the control condition; and (e) the negative effects of viewing magazine images of the thin ideal would be more apparent for participants with elevated levels of eating disorder symptomology at baseline.

The Pearson's product-moment correlations confirmed the hypothesis regarding correlations between variables; thin ideal internalization was found to be associated with body dissatisfaction, drive for thinness, social comparison, and self-esteem, such that high levels of thin ideal internalization were associated with high body dissatisfaction, drive for thinness, social comparison, and low self-esteem. The present study found that the two measures of thin ideal internalization used in this study, IBSS-R and SATAQ-3, were positively correlated with each other, and that there were slight differences between the two measures in the way that they were related to other variables. The IBSS-R was positively correlated with social comparison and negatively correlated with body dissatisfaction, such that higher levels of thin ideal internalization were associated with a greater tendency to engage in social comparison and

greater body dissatisfaction. The IBSS-R was not correlated with drive for thinness nor self-esteem. In contrast, the present study found that the SATAQ-3 was positively correlated with social comparison and negatively correlated with drive for thinness, self-esteem, and body dissatisfaction, meaning that higher levels of thin ideal internalization as measured by the SATAQ-3 are associated with higher levels of social comparison, drive for thinness, and body dissatisfaction, and lower levels of self-esteem. These differences between the IBSS-R and the SATAQ-3 likely reflect the subtle differences in the characteristic measured by each scale; although both scales measure thin ideal internalization, the IBSS-R measures the degree to which women have internalized appearance norms (i.e. the notion that thin, tall, lean women are more attractive) and the SATAQ-3 measures the degree to which women feel pressure to be thin from the media and their tendency to compare their bodies to people in the media. These patterns of association support previous research that has elucidated the relationships between thin ideal internalization, body dissatisfaction, drive for thinness, social comparison, and self-esteem. Additionally, these correlations lend support to the importance of focusing on these variables in studies examining potential methods of preventing body image concerns and disordered eating behaviors associated with viewing media images of the thin ideal.

Between-subjects results at baseline indicate that the control group and disclaimer group were comparable and did not differ significantly on any variable of interest. This suggests that the random assignment to conditions was effective. Between-subjects results also indicate that there were no significant differences between the control and disclaimer groups following exposure to the magazine images. This finding does not support the study hypotheses, which predicted that the disclaimer group would demonstrate significantly lower levels of body dissatisfaction, drive for thinness, social comparison, and higher levels of self-esteem than the

control group following exposure to the magazine images. The lack of significant differences between the groups may be due to a range of measurement or study design issues, including participant response bias (i.e., participants altered their responses in accordance to what they believed was being studied). Alternatively, this finding may truly indicate that the disclaimers were not effective in reducing body image concerns.

Within-subjects analyses were conducted to examine changes in body image concerns and attitudes associated with disordered eating within each condition from baseline to post-manipulation. These findings partially support the hypotheses of the present study, which predicated significant increases in body dissatisfaction, drive for thinness, and thin ideal internalization, and decreases in self-esteem from baseline to post-manipulation in the control group, but no significant changes in the disclaimer group. Participants in the control condition, who viewed magazine images of the thin ideal without disclaimers, demonstrated significant decreases in self-esteem, but no significant changes in body dissatisfaction, drive for thinness, or thin ideal internalization from baseline to post-manipulation. Participants in the disclaimer condition demonstrated no significant changes from initial levels of body dissatisfaction or drive for thinness, but demonstrated significant increases in thin ideal internalization and decreases in self-esteem.

The results from within-subjects analyses on body dissatisfaction, drive for thinness, and thin ideal internalization are puzzling. Previous research (i.e., Dalley, Buunk, & Umit, 2009; Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2001; Hausenblas, Campbell, Menzel, Doughty, Levine, & Thompson, 2013; Stice, Schupat-Neuberg, Shaw, & Stein, 1994; Stice & Shaw, 1994; van den Berg, Paxton, Keery, Wall, Guo, & Neumark-Sztainer, 2007) has demonstrated that viewing images of the thin ideal evokes body dissatisfaction, drive for

thinness, and thin ideal internalization among females, but findings from the current study do not support these findings. It is possible that the scales used to measure body dissatisfaction and drive for thinness were not suitable for nonclinical populations and thus did not capture subtle changes within participants; the body dissatisfaction subscale and drive for thinness subscale of the EDI were originally developed for clinical samples endorsing symptoms of bulimia and anorexia nervosa and there has been some controversy over their use for nonclinical groups (Tylka & Subich, 2004). Follow-up studies that utilize different measures of body dissatisfaction and drive for thinness must be conducted before a conclusion can be reached on the effectiveness of disclaimers in alleviating these outcomes associated with viewing images of the thin ideal.

Further, the increases in thin ideal internalization in the disclaimer condition from baseline to post-manipulation may indicate that rather than reducing participants' appearance social comparison with the models representing the thin ideal, the disclaimers drew attention to the thin ideal as a standard of beauty and increased participants' feelings of pressure to be thin. Given that college-age women tend to report high levels of thin ideal internalization, it may be that viewing images of the thin ideal and responding to questions that measure thin ideal internalization heightens attention to thinness. The examination of how media disclaimer policies influence body image concerns and attitudes associated with eating disorders remains an important area of study, as previous studies did not examine how the presence of disclaimers affects thin ideal internalization. Additional studies should examine the factors that contribute to thin ideal internalization associated with viewing media images of the thin ideal, and establish whether disclaimers necessarily produce increases in thin ideal internalization for all viewers, or whether the disclaimers have differential effects on thin ideal internalization for individuals who demonstrate higher levels of eating disorder pathology or body image disturbance at baseline.

Given that media images of the thin ideal have been consistently linked to risk for disordered eating (Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2001) and that college women often endorse heightened disordered eating attitudes and cognitions (Fitzsimmons-Craft, 2011), analyses were conducted to investigate how global disordered eating attitudes evident at baseline influenced study outcomes. These analyses confirmed the hypothesis that individuals with elevated disordered eating attitudes at baseline would be differentially affected by exposure to images of the thin ideal. In line with previous research about risk for disordered eating in college-aged women, between 20-25% of women in the current study were categorized as endorsing elevated disordered eating attitudes prior to exposure to media images. Compared to women with lower levels of attitudes associated with disordered eating, these women reported higher levels of thin ideal internalization, social comparison tendencies, drive for thinness, body dissatisfaction, and lower self-esteem at baseline and at post-manipulation. This is consistent with the characteristics that would be expected among individuals struggling with body image concerns and disordered eating.

Comparison of pre-manipulation and post-manipulation data also suggests that women with elevated disordered eating attitudes at baseline are more negatively impacted by viewing images of the thin ideal than those with lower levels of disordered eating attitudes. Women who exhibited elevated levels of disordered eating attitudes at baseline, but not women with low levels of disordered eating attitudes, demonstrated significant increases in thin ideal internalization from baseline to post-manipulation. These increases may account for the significant increases in the entire sample from baseline to post-manipulation, and suggest that the impact of viewing images of the thin ideal on thin ideal internalization is greater for individuals with pre-existing body image concerns and disordered eating behaviors than for individuals

without body image concerns or disordered eating behaviors. Both women with and without pre-existing disordered eating attitudes demonstrated significant decreases in self-esteem from baseline to post-manipulation. The decrease was larger for women without pre-existing disordered eating attitudes, but women with these attitudes still exhibited lower self-esteem than women without pre-existing disordered eating attitudes at post-manipulation. These findings indicate that viewing images of the thin ideal negatively impacts self-esteem in individuals with and without pre-existing disordered eating attitudes but to differing degrees, and has an impact on self-esteem regardless of whether or not a disclaimer is present. These results are consistent with the results of a recent meta-analysis (Ferguson, 2013), which found that media images of the thin ideal affect individuals with pre-existing body image concerns in different ways than individuals without such concerns. Ferguson (2013) found that for the general population, viewing media images of the thin ideal has small to negligible effects on body image concerns and risk for eating disorders. However, for subgroups of the population, such as females with pre-existing body dissatisfaction and other characteristics such as neuroticism, the impact of viewing images of the thin ideal is much more significant (Ferguson, 2013).

There are several limitations to the current study. The generalizability of the study results must be considered; the study sample consisted of predominately 18 year-old women enrolled at a small, prestigious liberal arts college in the South. These women may not be representative of all women in the college age category, so it is unclear whether the study findings may be generalized to all college-age women. Long-term effects of viewing media images with and without disclaimers could not be determined in the current study due to its short-duration. Longitudinal study designs may yield valuable findings in this area of research. As mentioned previously, the measures for body dissatisfaction and drive for thinness were not ideal for

nonclinical samples such as the one used in the present study. Future studies of this nature should utilize more appropriate measures of body dissatisfaction and drive for thinness. Finally, the external validity of the current study must be considered. It is possible that the experimental manipulation did not mirror women's real-world experiences reading magazines closely enough, and that the disclaimers did not look legitimate to the participants. It may be prudent to use a more naturalistic study design and more advanced photo-editing software and printing services to enhance the disclaimers' perceived legitimacy.

The disclaimers were not effective in preventing social comparison tendencies, which are thought to be responsible for body image concerns and disordered eating behaviors associated with viewing media images of the thin ideal. However, this finding is not of great importance because no significant changes in proclivity to engage in appearance social comparison were evident in the control group or disclaimer group. The disclaimers appear to have enhanced thin ideal internalization, but it is unclear whether these increases were independent of increases in thin ideal internalization that occurred among individuals with pre-existing pathological body image concerns and disordered eating behaviors (i.e., individuals in the High Disordered Eating Group) as a result of exposure to media images of the thin ideal. The results of this study imply that among college-age women, those with elevated pathological body image concerns and disordered eating behaviors are more likely to experience negative effects from viewing images of the thin ideal, and that disclaimers likely do not ameliorate those effects. These findings highlight the importance of changing attitudes associated with disordered eating among college-age women and suggest the need for targeted interventions for women with elevated disordered eating attitudes. Further research must be conducted to develop appropriate and effective means

of preventing and reducing pathological body image concerns and disordered eating among college-age women.

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*Appendix A***Pre-Manipulation Questionnaire****Demographic information.**

Please circle the number that best answers the following questions.

1. How old are you?

18 19 20 21 22 23 24 25

2. What year in college?

1 2 3 4 5

3. How many years of education has your mother had?

1 2 3 4 5 6 7

Less than High School	High School Graduate	Some College	College Graduate	Some Grad School	Graduate Degree	Don't Know
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4. How many years of education has your father had?

1 2 3 4 5 6 7

Less than High School	High School Graduate	Some College	College Graduate	Some Grad School	Graduate Degree	Don't Know
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5. Do you consider yourself to be...?

- | | |
|--|-------------------------------------|
| 1. White/Caucasian | 2. Afro-American/Black |
| 3. Latino/Hispanic | 4. Mexican |
| 5. Mexican American | 6. Cambodian |
| 7. Filipino | 8. Korean |
| 9. Vietnamese | 10. Laotian |
| 11. Pacific Islander (Guam, Tonga,
Samoa) | 12. American Indian/Native American |
| 13. Japanese/Japanese American | 14. Chinese/Chinese American |

15. Asian Indian

16. Other (write in) _____

6. What is your height? ____ ft ____ inches
7. What is your current weight? _____ (pounds)
8. Have you ever been diagnosed with any of the following? Please check all that apply.
- Eating Disorder
 - Anxiety Disorder
 - Depression

Eating disorder screening (Eating Disorder Examination).

On how many days out of the past 28 days...

1. Have you been consciously trying to restrict the amount of food you eat to influence your shape or weight? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

2. Have you gone for long periods of time (8 hours or more) without eating anything in order to influence your shape or weight? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

3. Have you attempted to avoid eating any foods that you like in order to influence your shape or weight? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

4. Have you attempted to follow definite rules regarding your eating in order to influence your shape or weight; for example, a calorie limit, a set amount of food, or, rules about what or when you should eat? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

5. Has thinking about food or its calorie content interfered with your ability to concentrate on things you are interested in: for example, read, watch TV or follow a conversation? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

6. Have you had a definite fear that you might not be able to either resist eating or stop eating? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

7. Have you experienced a sense of loss of control over eating? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

8. Have you had any episodes of binge-eating? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

9. Have you eaten in secret? (Do not count binges.) (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

10. Have you had a definite desire for your stomach to be flat? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

11. Have you had a definite desire for your stomach to feel empty? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

12. Has thinking about shape or weight interfered with your ability to concentrate on things you are interested in: for example, read, watch TV or follow a conversation? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

13. Have you had a definite fear that you might gain weight or become fat? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

14. Have you felt fat? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

15. Have you had a strong desire to lose weight? (circle one)

No days 1-5 days 6-12 days 13-15 days 16-22 days 23-27 days Every day

16. On what proportion of times that you have eaten have you felt guilty because of your shape or weight? (Do not count binges.) (circle one)

None of the times	A few of the times	Less than half the times	Half the times	More than half the times	Most of the time
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17. Have there been times when you have eaten what most people would regard as an unusually large amount of food. (Please circle)

No Yes

18. How many such episodes have you had over the past four weeks?

19. During how many of these episodes of overeating did you have a sense of having lost control?

20. Have you had other episodes of eating in which you have had a sense of having lost control, but have not eaten an unusually large amount of food? (Please circle)

No Yes

21. How many such episodes have you had over the past four weeks?

22. Over the past four weeks, have you made yourself sick (vomit) as a means of controlling your shape or weight, or to counteract the effects of eating? (Please circle)

No Yes

23. On how many days of the last 28 have you done this?

24. Over the past four weeks, have you taken laxatives as a means of controlling your shape or weight or to counteract the effects of eating? (Please circle)

No Yes

25. On how many days of the last 28 have you done this?

26. Over the past four weeks, have you taken diuretics (water tablets) as a means of controlling your shape or weight or to counteract the effects of eating? (Please circle)

No Yes

27. On how many days of the last 28 have you done this?

28. Over the past four weeks, have you vigorously exercised as a means of controlling your weight, altering your shape or your amount of fat, or burning off calories? (Please circle)

No

Yes

29. On how many days of the last 28 have you done this?

Over the past four weeks (28 days) . . .

30. Has your weight influenced how you think about (judge) yourself as a person? (circle one)

Not at all

Slightly

Moderately

Markedly

31. Has your shape influenced how you think about (judge) yourself as a person? (circle one)

Not at all

Slightly

Moderately

Markedly

32. How much would it distress you if you had to weight yourself once a week for the next four weeks? (circle one)

Not at all

Slightly

Moderately

Markedly

33. How dissatisfied have you felt about your weight? (circle one)

Not at all

Slightly

Moderately

Markedly

34. How dissatisfied have you felt about your shape? (circle one)

Not at all

Slightly

Moderately

Markedly

35. How thin have you wanted to be? (circle one)

Not at all

Slightly

Moderately

Markedly

36. How concerned have you been about other people seeing you eat? (circle one)

Not at all

Slightly

Moderately

Markedly

37. How uncomfortable have you felt seeing your body; for example, in the mirror, in shop window reflections, while undressing or taking a bath or shower?

Not at all

Slightly

Moderately

Markedly

38. How uncomfortable have you felt about others seeing your body; for example, in communal changing rooms, when swimming or wearing tight clothes?

Not at all

Slightly

Moderately

Markedly

39. Have the past four weeks been representative of the past year? (Please circle)

No

Yes

40. If no, how has the past year differed from the past four weeks?

41. How much more or less do you feel you worry about your weight and body shape than other women your age?

- I worry a lot less than other women
- I worry a little less than other women
- I worry about the same as other women
- I worry a little more than other women
- I worry a lot more than other women

42. How afraid are you of gaining 3 pounds?

- Not afraid of gaining
- Slightly afraid of gaining
- Moderately afraid of gaining
- Very afraid of gaining
- Terrified of gaining

43. When was the last time you went on a diet?

- I've never been on a diet
- I was on a diet about one year ago
- I was on a diet about 6 months ago
- I was on a diet about 3 months ago
- I was on a diet about 1 month ago
- I was on a diet less than 1 month ago
- I am currently on a diet

44. Compared to other things in your life, how important is your weight to you?

- My weight is not important compared to other things in my life
- My weight is a little more important than some other things
- My weight is more important than most, but not all, things in my life
- My weight is the most important thing in my life

45. Do you ever feel fat?

- Never
- Rarely
- Sometimes
- Often
- All of the time

Drive for thinness.

1. I eat sweets and carbohydrates without feeling nervous.*
2. I think about dieting.
3. I feel extremely guilty after overeating.
4. I am terrified of gaining weight.
5. I exaggerate or magnify the importance of weight.
6. I am preoccupied with the desire to be thinner.
7. If I gain a pound, I worry that I will keep gaining.

Body dissatisfaction.

1. I think that my stomach is too big.
2. I think that my thighs are too large.
3. I think that my stomach is just the right size.*
4. I feel satisfied with the shape of my body.*
5. I like the shape of my buttocks.*
6. I think my hips are too big.
7. I think that my thighs are just the right size.*
8. I think my buttocks are too large.
9. I think that my hips are just the right size.*

Self-esteem.

- 1 = Strongly agree
 2 = Agree
 3 = Strongly disagree
 4 = Disagree

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

Thin Ideal Internalization.

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 would like my body to look like the people who are on TV.
4. I compare my body to the bodies of TV and movie stars.

5. TV commercials are an important source of information about fashion and “being attractive.”
6. I’ve felt 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 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 the movies.
12. I compare my body to the bodies of people who appear in magazines.
13. Magazine articles are 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 wish I looked 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 try to look like the people on TV.
28. Movies stars 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.

How much do you agree with these statements?:

1. Slender women are more attractive
2. Women who are in shape are more attractive
3. Tall women are more attractive
4. Women with toned (lean) bodies are more attractive
5. Shapely women are more attractive
6. Women with long legs are more attractive

Social Comparison.

1. At parties or other social events, I compare my physical appearance to the physical appearance of others.
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.
3. At parties or other social events, I compare how I am dressed to how other people are dressed.

4. Comparing your “looks” to the “looks” of others is a bad way to determine if you are attractive or unattractive.*
5. In social situations, I sometimes compare my figure to the figures of other people.

*Appendix B***Post-Manipulation Questionnaire****Drive for thinness.**

1. I eat sweets and carbohydrates without feeling nervous.*
2. I think about dieting.
3. I feel extremely guilty after overeating.
4. I am terrified of gaining weight.
5. I exaggerate or magnify the importance of weight.
6. I am preoccupied with the desire to be thinner.
7. If I gain a pound, I worry that I will keep gaining.

Body dissatisfaction.

1. I think that my stomach is too big.
2. I think that my thighs are too large.
3. I think that my stomach is just the right size.*
4. I feel satisfied with the shape of my body.*
5. I like the shape of my buttocks.*
6. I think my hips are too big.
7. I think that my thighs are just the right size.*
8. I think my buttocks are too large.
9. I think that my hips are just the right size.*

Self-esteem.

- 1 = Strongly agree
2 = Agree
3 = Strongly disagree
4 = Disagree

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

Thin Ideal Internalization.

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 would like my body to look like the people who are on TV.
4. I compare my body to the bodies of TV and movie stars.
5. TV commercials are an important source of information about fashion and “being attractive.”
6. I’ve felt 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 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 the movies.
12. I compare my body to the bodies of people who appear in magazines.
13. Magazine articles are 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 wish I looked 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 try to look like the people on TV.
28. Movies stars 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.

How much do you agree with these statements?:

1. Slender women are more attractive
2. Women who are in shape are more attractive
3. Tall women are more attractive
4. Women with toned (lean) bodies are more attractive
5. Shapely women are more attractive
6. Women with long legs are more attractive

Social Comparison.

1. At parties or other social events, I compare my physical appearance to the physical appearance of others.
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.
3. At parties or other social events, I compare how I am dressed to how other people are dressed.
4. Comparing your “looks” to the “looks” of others is a bad way to determine if you are attractive or unattractive.*
5. In social situations, I sometimes compare my figure to the figures of other people.

Appendix C

Disclaimer Label



Appendix D

Demographics

Race/Ethnicity	<i>n</i>	%
White/Caucasian	65	67.01
Latino/Hispanic	8	8.25
Indian	6	6.19
African American/Black	5	5.15
Chinese/Chinese American	4	4.12
Vietnamese	2	2.06
Native American	1	1.03
Other	6	6.19

Appendix E

Descriptive Statistics for Dependent Variables

Variable ^a	Time 1			Time 2		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
SATAQ-3	3.11	0.362	2.10-3.73	3.25	0.364	1.10-4.87
IBSS-R	3.65	0.526	2.00-4.83	3.71	0.594	1.67-5.00
PACS	3.14	0.638	1.60-4.60	3.07	0.699	1.60-4.60
DT	4.80	5.01	0.00- 17.0	4.61	5.32	0.00-18.00
BD	9.75	5.58	0.00-22.0	9.46	5.73	0.00-25.00
SE	30.2	5.27	18.0-40.0	27.7	4.91	18.0-40.0

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 97 for all variables except SATAQ-3, for which *n* = 86 due to missing data.

Appendix F

Table F1

Differences between Experimental Conditions at Baseline

Variable ^a	Control	Disclaimer	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
SATAQ-3	3.11 (0.37)	3.12 (0.36)	-0.11	84	0.91
IBSS-R	3.60 (0.48)	3.69 (0.57)	-0.83	95	0.41
PACS	3.06 (0.61)	3.22 (0.66)	-1.23	95	0.22
DT	4.65 (4.95)	4.96 (5.12)	-0.30	95	0.77
BD	10.31 (5.94)	9.19 (5.19)	0.99	95	0.33
SE	30.31 (5.79)	30.06 (4.74)	0.23	95	0.82

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 97 for all variables except SATAQ-3, for which *n* = 86 due to missing data.

Table F2

Differences between Experimental Conditions at Post-Manipulation

Variable ^a	Control	Disclaimer	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
SATAQ-3	3.23 (0.77)	3.29 (0.78)	-0.41	95	0.68
IBSS-R	3.67 (0.61)	3.75 (0.58)	-0.69	95	0.49
PACS	3.01 (0.75)	3.13 (0.64)	-0.82	95	0.41
DT	4.41 (5.31)	4.81 (5.38)	-0.37	95	0.71
BD	10.27 (6.18)	8.65 (5.17)	1.40	95	0.17
SE	27.69 (5.34)	27.71 (4.49)	-0.01	95	0.99

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 97 for all variables except SATAQ-3, for which *n* = 86 due to missing data.

Appendix G

Table G1

Whole Sample Changes from Baseline to Post-Manipulation

Variable ^a	Baseline	Post- Manipulation	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
SATAQ-3	3.11 (0.36)	3.25 (0.81)	-2.48	85	0.02*
IBSS-R	3.65 (0.53)	3.71 (0.59)	-1.98	96	0.05*
PACS	3.14 (0.64)	3.07 (0.70)	1.28	96	0.20
DT	4.80 (5.01)	4.61 (5.32)	0.77	96	0.44
BD	9.75 (5.58)	9.46 (5.73)	0.99	96	0.33
SE	30.19 (5.27)	27.7 (4.91)	12.23	96	0.00*

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*N* = 97 for all variables except SATAQ-3, for which *N* = 86 due to missing data.

Table G2

Control Condition Changes in Dependent Variables from Baseline to Post-Manipulation

Variable ^a	Baseline	Post- Manipulation	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
SATAQ-3	3.12 (0.37)	3.22 (0.82)	-1.39	40	0.17
IBSS-R	3.60 (0.48)	3.67 (0.61)	-1.49	48	0.14
PACS	3.06 (0.61)	3.01 (0.75)	0.60	48	0.55
DT	4.65 (4.95)	4.41 (5.31)	0.65	48	0.52
BD	10.31 (5.94)	10.27 (6.18)	0.13	48	0.90
SE	30.31 (5.79)	27.69 (5.34)	11.68	48	0.00*

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 49 for all variables except SATAQ-3, for which *n* = 41 due to missing data.

Table G3

Disclaimer Condition Changes in Dependent Variables from Baseline to Post-Manipulation

Variable ^a	Baseline	Post-Manipulation	<i>t</i>	<i>df</i>	<i>p</i>
	<i>M (SD)</i>	<i>M (SD)</i>			
SATAQ-3	3.12 (0.36)	3.28 (0.80)	-2.07	44	0.04*
IBSS-R	3.69 (0.57)	3.75 (0.58)	-1.30	47	0.20
PACS	3.22 (0.66)	3.13 (0.64)	1.22	47	0.23
DT	4.96 (5.12)	4.81 (5.38)	0.43	47	0.67
BD	9.18 (5.19)	8.65 (5.17)	1.11	47	0.27
SE	30.06 (4.74)	27.71 (4.49)	6.87	47	0.00*

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 48 for all variables except SATAQ-3, for which *n* = 45 due to missing data.

Appendix H

Table H1

Changes on Dependent Variables from Baseline to Post-Manipulation for Low Disordered Eating Group

Variable ^{ab}	Low Disordered Eating Group		<i>t</i>	<i>p</i>
	Baseline <i>M (SD)</i>	Post-Manipulation <i>M (SD)</i>		
SATAQ-3	3.03 (0.36)	3.04 (0.80)	-0.28	0.78
IBSS-R	3.63 (0.57)	3.65 (0.64)	-0.58	0.57
PACS	2.98 (0.62)	2.91 (0.69)	1.22	0.23
DT	2.71 (3.23)	2.45 (3.73)	1.02	0.31
BD	8.72 (5.40)	8.29 (5.65)	1.25	0.22
SE	31.28 (5.27)	28.62 (5.04)	12.9	0.00*

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 69 for all variables except SATAQ-3, for which *n* = 61 due to missing data.

^b*df* = 68 for all variables except SATAQ-3, for which *df* = 60.

Table H2

Changes on Dependent Variables from Baseline to Post-Manipulation for High Disordered Eating Group

Variable ^{ab}	High Disordered Eating Group		<i>t</i>	<i>p</i>
	Baseline <i>M (SD)</i>	Post-Manipulation <i>M (SD)</i>		
SATAQ-3	3.35 (0.24)	3.78 (0.61)	-4.35	0.00*
IBSS-R	3.77 (0.34)	3.92 (0.44)	-2.49	0.02*
PACS	3.57 (0.56)	3.57 (0.51)	0.08	0.94
DT	10.09 (5.03)	9.96 (5.13)	0.18	0.86
BD	12.04 (5.38)	12.22 (5.14)	-0.29	0.77
SE	27.74 (4.47)	25.04 (3.42)	5.71	0.00*

Note. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

^a*n* = 23 for all variables except SATAQ-3, for which *n* = 20 due to missing data.

^b*df* = 35 for all variables except SATAQ-3, for which *df* = 19.

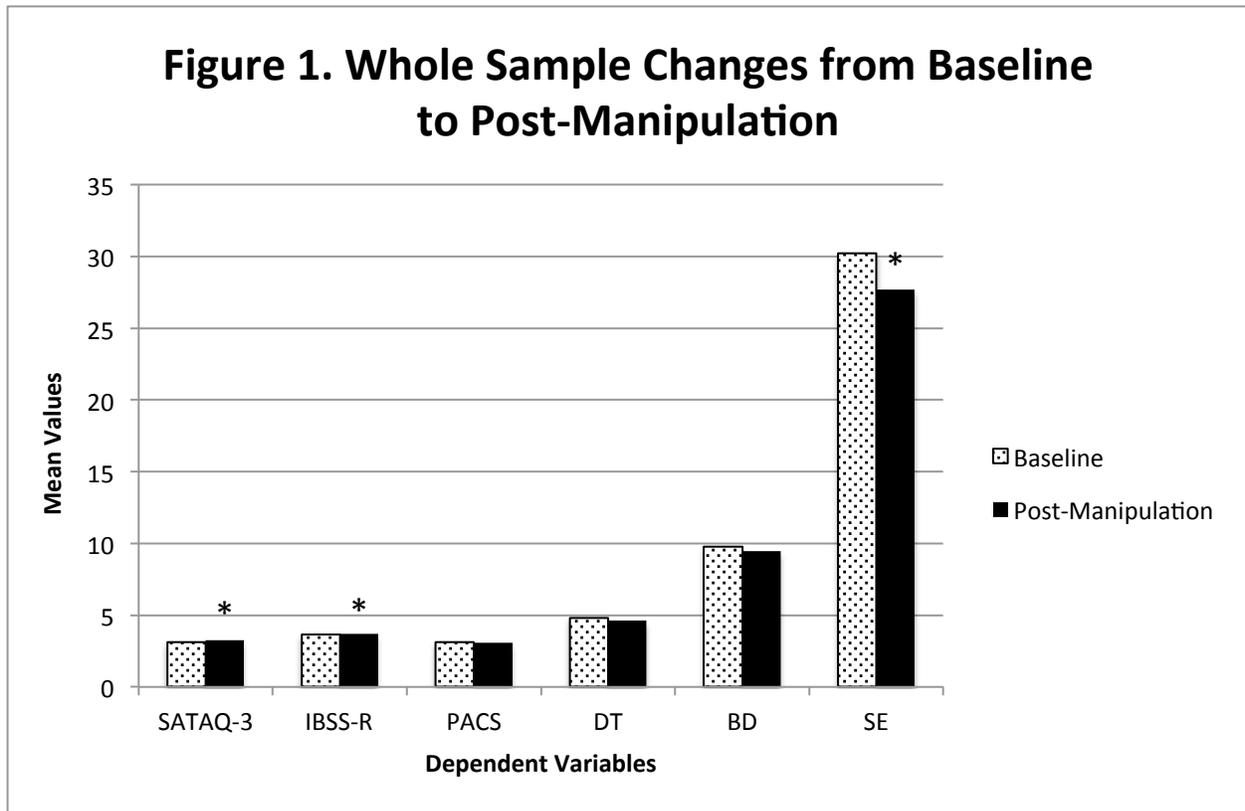
Appendix I

Figure 1. Changes in overall levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem from baseline to post-manipulation. There were significant increases ($p < .05$) on levels of thin ideal internalization as measured by the SATAQ-3 and IBSS-R, and significant decreases ($p < .05$) in self-esteem. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

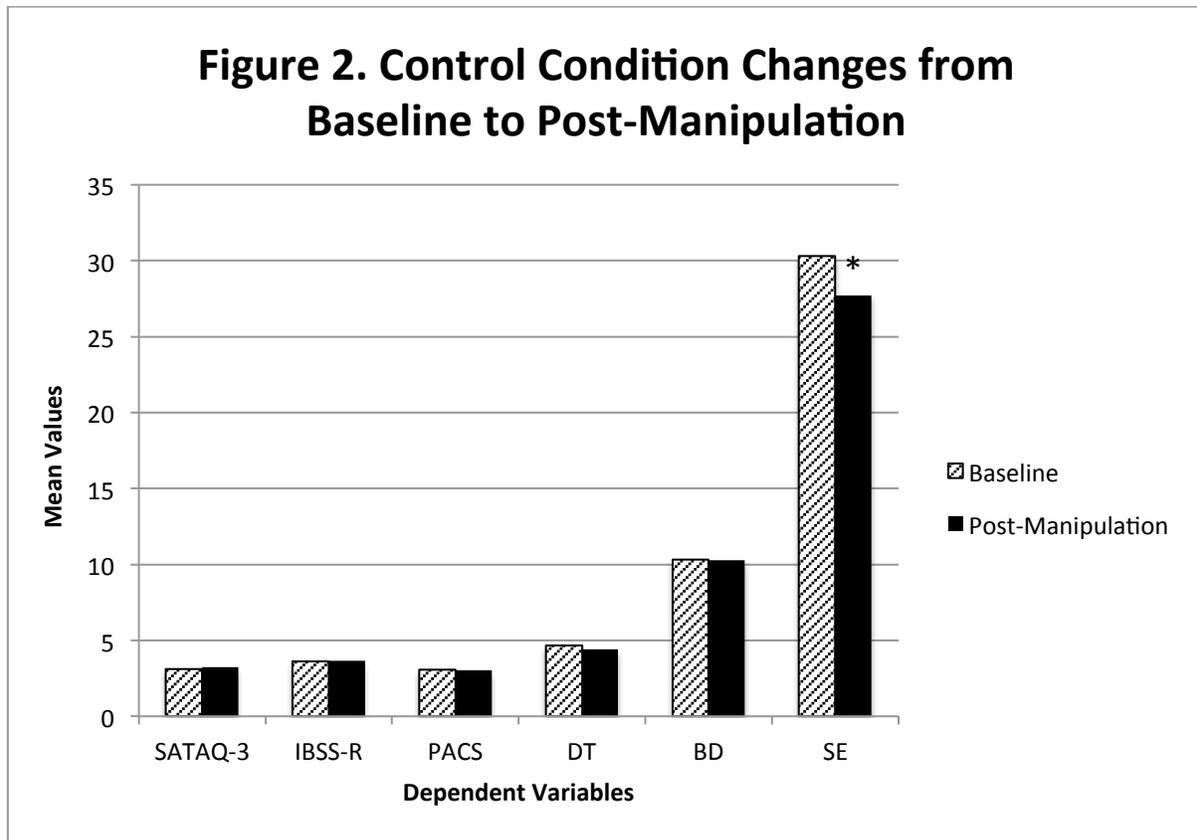
Appendix J

Figure 2. Changes in levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem from baseline to post-manipulation in the control group. There were significant decreases ($p < .05$) in self-esteem from baseline levels to post-manipulation levels. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.

Appendix K

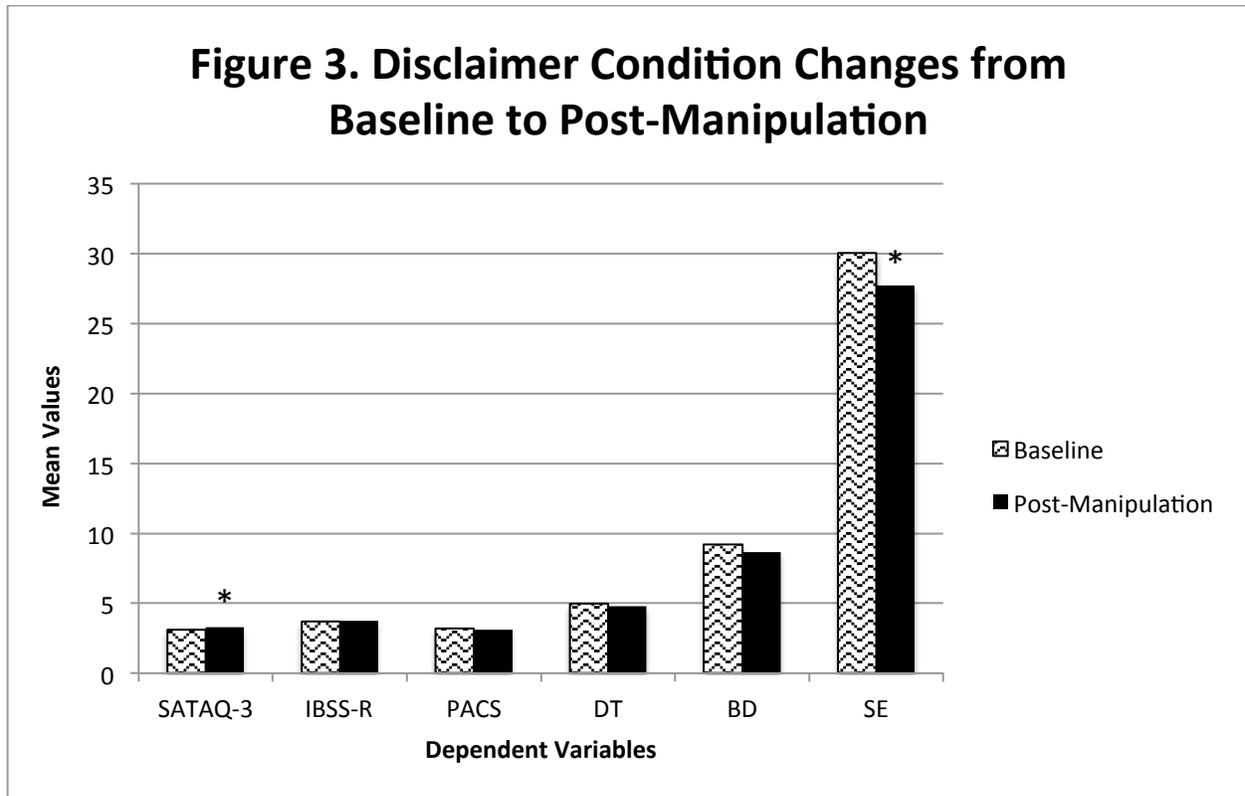


Figure 3. Changes in levels of thin ideal internalization, social comparison, drive for thinness, body dissatisfaction, and self-esteem from baseline to post-manipulation in the disclaimer group. There was a significant increase ($p < .05$) in thin ideal internalization as measured by the SATAQ-3, and a significant decrease ($p < .05$) in self-esteem from baseline to post-manipulation. SATAQ-3 = Social Attitudes Toward Appearance Questionnaire; IBSS-R = Revised Ideal Body Stereotype Scale; PACS = Physical Appearance Comparison Scale; DT = Drive for Thinness; BD = Body Dissatisfaction; SE = Self-Esteem.