

Fall 12-14-2015

Women's Perceptions of Muscular Body Image and Its Impact on Eating Disorders

Juliana Eovino

Western Kentucky University, juliana.eovino083@topper.wku.edu

Follow this and additional works at: http://digitalcommons.wku.edu/stu_hon_theses



Part of the [Clinical Psychology Commons](#)

Recommended Citation

Eovino, Juliana, "Women's Perceptions of Muscular Body Image and Its Impact on Eating Disorders" (2015). *Honors College Capstone Experience/Thesis Projects*. Paper 589.

http://digitalcommons.wku.edu/stu_hon_theses/589

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Honors College Capstone Experience/Thesis Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.

WOMEN'S PERCEPTIONS OF MUSCULAR BODY IMAGE AND ITS IMPACT ON
EATING DISORDERS

A Capstone Experience/Thesis Project
Presented in Partial Fulfillment of the Requirements for
the Degree Bachelor of Psychological Sciences with
Honors College Graduate Distinction at Western Kentucky University

By:

Juliana Eovino

Western Kentucky University

2015

CE/T Committee:

Dr. Frederick G. Grieve

Dr. Daniel McBride

Dr. Wolfgang Brauner

Approved by:



Advisor

Department of Psychology

Copyright by
Juliana Eovino
2015

ABSTRACT

According to the National Association of Anorexia Nervosa and Associated Disorders (ANAD, 2015), the largest majority of people with an Eating Disorder (ED) are female college aged students. The current study suggests this is due to the differences in society's portrayal of gender. Media suggests women should strive for a thinness that is unrealistic and unattainable for most women. Participants for the current study take two surveys at separate times to measure how media portrayals of the female body affects eating disorders. The surveys are made up of either a media influence stressing the importance of muscularity or a thinness influence portraying the thin ideal body that media currently expresses. It was hypothesized in this study that ED symptoms are lower after the muscular survey than the thin survey, and ratings on the thin survey will negatively affect body image scores. There was no statistically significant difference found between ED scores or body image ratings. It was found that media's thin influence is not a causal factor of ED symptoms. The thin-ideal was not found to negatively affect body image either compared to a focus on muscularity.

Key words: Body Image, Muscular Perspective, Eating Disorder Symptoms, Media Influence

ACKNOWLEDGEMENTS

This project would not have been possible without the help, knowledge, and support of so many people. I am grateful to Dr. Rick Grieve, my CE/T advisor, for his knowledge, time, and critique of my work. I am very thankful for his encouragement and dedication to helping me become a scholar. Many thanks to the members of my committee-Dr. Daniel McBride and Dr. Wolfgang Bruner- for their encouragement, insight, and confidence in me.

I would like to thank the members of the Clinical Applied Research Group for their help with data collection and support through the entirety of this project. I am thankful for the Honors College's support and intellectual community that encouraged me to pursue this project. Within the Honors College, I am grateful for Dr. Dana Bradley and her graduate assistant for their help assuring the completion of this project.

Finally, I would like to thank my friends and family. Their support and encouragement gave me the confidence and perseverance necessary to finish a project like this.

VITA

2012..... Greater Louisville Alumni Scholar
2012..... Dean's List
2013..... FUSE Grant Recipient
2013..... RCAP Grant Recipient
February 2014..... Presentation at the Reach Week Conference
March 2014..... Presentation at the Student Research Conference
October 2014..... Presentation at the Academy of Business Research Conference
2015..... Teacher's Assistant at the Down Syndrome of Louisville
2012-2015..... WKU Field Hockey Club
2013-2015..... Clinical Applied Research Group
2013-2015..... Employee at the Kelly Autism Program
2014-2015..... Noncontingent Reinforcement Research Assistant for Dr. Christina Noel
2014-2015..... Community Living Services Employee

FIELDS OF STUDY

Major Field: Psychology

Minor Field: Applied Statistics

TABLE OF CONTENTS

	<u>Page</u>
Abstract.....	ii
Acknowledgments.....	iii
Vita.....	iv
List of Tables.....	vi
List of Figures.....	vii
Chapters:	
1. Literature Review.....	1
2. Methods.....	7
3. Results.....	11
4. Discussion.....	16
References.....	23
Appendices.....	26

List of Tables

Table 1. Mean and Standard Deviations of Women’s ED Symptoms and Body Image Rating. 13

Table 2. Mean and Standard Deviations of How Women Want to Change Based on the Ideal. 14

List of Figures

Figure 1. Differences between Ratings on the Thin to Fat Scale. 19

Figure 2. Differences between Ratings on the Muscular Scale 19

CHAPTER 1

LITERATURE REVIEW

Eating disorders (EDs) are seen in all ages, genders, races and in a range of severity (ANAD, 2015). According to the American Psychological Association (APA); (2015), “almost everyone worries about their weight occasionally” (pp.2). EDs are the abnormal eating habits people take on to cope with these worries, which can then affect their health and possibly threaten their life (APA; 2015). According to the ANAD (2015), up to 30 million people in the United States suffer from an eating disorder (2015).

Of these 30 million, more than 90% of them are female. The largest majority of women with an ED are college-aged students (ANAD, 2015). Why are almost 30 million college-aged girls so worried about their weight that they are at risk for developing an ED? The current study, along with Bonneau-Kaya and Grieve (2007) suggest that part of understanding the difference in statistics between men and women with ED is related to the differences in society’s portrayal of gender. Previous research suggests mass media is the source of today’s gender and sex roles (Pritchard & Cramblitt, 2014; Serdar, n.d.).

Media, in many forms, catches the attention of today’s society substantially. Women spend close to 12 hours a week watching televised media and an average of two hours a month reading magazines (Pritchard & Cramblitt, 2014). Teenage girls specifically have reported reading fashion magazines much more frequently at an average

of 4.3 hours each week (Serdar, n.d.). Other time is spent viewing movies, searching the internet, social networking with friends and engaging in media in other ways. Its evident women are watching. Collge students in the U.S. spend up to three hours a day consuming several types of media (Pritchard & Cramblitt, 2014). Media is obviously going to influence those who are viewing, but the problem is the influence it has created and the effect it is having on women specifically.

“Lose More,” “Help You Slim Down,” “Bombshell Body” (Women’s Health Magazine, 2015), “Trying to Lose Weight?” (Glamour Magazine, 2015), “Weight-Loss Strategies,” “Food for Weight Loss,” “Weight Maintenance,” and “Help You Shed Pounds” (Shape Magazine, 2015) are just a few of media’s phrases that suggest women should strive for thinness. Pritchard & Cramblitt (2014) refer to this as the thin-ideal body. This ideal body is unrealistic and unattainable for most women, and ,consequently, leads to body dissatisfaction in women of all ages (Pritchard & Cramblitt, 2014; Serdar, n.d.) and races (DeBraganza & Hausenblas, 2010).

Not only are women reading entertainment that imbues a drive for thinness but everywhere they look, women in advertisements, movies, and other forms of entertainment are portrayed unrealistically as an ideal for the average woman. Models and actresses depict the unreachable ideal body shape as a social norm. DeBraganza and Hausenblas (2010) suggest these celebrities make women believe the ideal body shape portrayed in movies is “true” beauty and that women should strive towards it. Exposure to the ideal body is unavoidable. This social ideal even creates a feeling of necessity for women to lose weight (Bonneau-Kaya & Grieve, 2007). Serdar (n.d.) suggests it is unhealthy, dangerous, and it also starts too young.

“Nearly half of females ages six to eight have stated that they want to be slimmer” (Serdar, n.d. pp.3). As these young girls get older, their attention to media only increases along with their interest in their body image. How can women be satisfied with their body when such a small percentage of females actually fulfill this ultra-thin ideal media portrays (Serder, n.d.)? Why do movies and fashion shows not show a variety of different body shapes? Michael Cieply (2009) interviewed director Brian Kingman in a New York Times article. Mr. Kingman said that thinness is portrayed as often as it is because the entertainment business believes that larger people are at higher risk due to high blood pressure and the possibility of strokes and heart attacks; therefore, fat actresses would cost more to insure.

Instead, models in the U.S. are generally 15% below the average female weight (Pritchard & Cramblitt, 2014) and actresses represent a predominately “homogenous Caucasian thin physique” (p. 702), which is found to be positively correlated with ED symptoms and body dissatisfaction in women (DeBraganza & Hausenblas, 2010). All hope is not lost for healthy role models when countries outside of the U.S. are cracking down on anorexic models. France, Italy, Spain and Israel have all adopted laws banning excessively thin models and fining and imprisoning those who hire them (Reuters, 2015).

These new laws recently passed in foreign countries reach even further to make condoning anorexia illegal. Internet sites that promote dangerous weight loss strategies are being targeted as well. Those who write any website inciting a reader to lose extreme amounts of weight and encouraging unhealthy eating restrictions will also be fined and imprisoned in these countries (Reuters, 2015). Unfortunately, Pro-Anorexia, Pro-Bulimia, and Pro-Eating Disorder groups still exist online (ANAD, 2015).

The ANAD (2015) have found that websites like these (which are illegal in some places) create a sense of an elite community for women to join that encourages eating disorder behavior and attitudes. They wrongly convince impressionable people that this community can help them fix their dissatisfaction with their body shape. Some sites are disguised as positive weight loss sites or blogs and social networking so they are hard to detect. Even if found, these communities that come together to strive for “thinspiration” (ANAD, 2015, pp.3) are not illegal in the U.S. and therefore do not face consequences like they should for encouraging mainly young girls to eat less and lose weight the wrong way (ANAD, 2015).

Just as media supports a drive for thinness in women, it also encourages a drive for muscularity in men (Cieply, 2009; Grieve, 2007; Pritchard & Cramblitt, 2014). “Crush Calories at Home,” “The Sprint Workout That Will Flatten Your Belly,” and “Why Strength Is a Matter of Life and Death” are some of the ideals media imposes on men (Men’s Health Magazine, 2015). Cieply (2009) suggests heavier guys are hired for the funny roles. Many different forms of media suggest to men that they have to build muscle to be the hero. This, too, leads to body dissatisfaction but in a different way than women. Bonneau-Kaya & Grieve (2007) suggest media influence leads men to be dissatisfied with their body shape. Rather than problematic weight loss behaviors seen in women, some men display weight gain behaviors dangerous to their health (Grieve, Wann, Henson & Ford, 2006).

As women are inundated with female models and movies that are unrealistically thin for the average woman to look like, men are bombarded with ways to become stronger in the gym and look like the unattainable muscular ideal (Pritchard & Cramblitt,

2014). The media's thin-ideal body may have led to over 90% of U.S. collegiate women being dissatisfied with their body, and the media's drive for muscularity could be a factor in 70 percent of U.S. collegiate men dissatisfied with their body (Bonneau-Kaya, 2007; Grieve, Henson, Wann & Ford, 2006; Pritchard & Cramblitt, 2014).

Numerous studies have found this correlation between media's drive for thinness in women and their body dissatisfaction and ED behaviors (ANAD, 2015; DeBraganza & Hausenblas, 2010; Pritchard & Cramblitt, 2014; & Serdar, n.d.). Bonneau-Kaya and Grieve (2007) suggest the 10:1 ratio in media's weight loss material to weight gain material may help explain the ratio of women to men (10:1) with an ED (2007). Although not often leading to an ED in men, media's ideal body for men has increased the pressure for them to conform to an unattainable body shape as well (Grieve, Wann, Henson & Ford, 2006). Grieve (2007) found that body dissatisfaction in men led to a disorder known as muscle dysmorphia. Muscle dysmorphia is characterized by a negative body image and an obsession to look more muscular than one's current body shape (Olivardia, 2001).

Media's influence in women's desire to look thinner may be related to the higher prevalence of EDs among females (ANAD, 2015). This statistic in women does not mean that media's influence on men has not negatively affected them also. As we see, muscle dysmorphia, although not an eating disorder, is still a serious disorder for men caused by a dissatisfaction with their bodies and the desire to be stronger (Grieve, 2007). Bonneau-Kaya and Grieve (2007) suggest media augments the rate of Muscle Dysmorphia in men and the high rates of EDs in women. Could there be a middle ground for women in which media had less of an effect on them to look thin and increased their awareness for

a healthy body? The current study aims to examine whether society's portrayal of women is a causal factor of these high rates in EDs for females and if it negatively effects body image.

CHAPTER 2

METHODS

Participants

A convenience sample of female participants were recruited through the Department of Psychology Study Board at Western Kentucky University. Each person will be required to participate in all conditions of the study to receive credit on Study Board. College-aged women comprised a representative sample of the studied population.

Materials

Demographics Participants' age, gender, race, year in school, height, and weight will be evaluated under the demographics survey. The weight demographic was used to measure whether the participant believed she was overweight. The weight demographic I made up of seven questions that relate to overweight females. Each question is measured on a seven point Likert-scale from (1) *strongly disagree* to (7) *strongly agree*. High scores indicate that the participant feels she is overweight. (See Appendix A.)

Body Measuring Scale The body measuring scale was used for the muscular model to measure each participant's interest in the importance of muscle tone for her body (See Appendix A.). The body measuring scale for the thin model was used to measure the participant's interest for an importance in a thin ideal for her body (See Appendix B.). The body measuring scale was made up of five questions for each ideal.

Each question is measured on a Likert scale from (1) *strongly disagree* to (7) *strongly agree*. High scores on the body measuring scale indicate participants find the model being described important to their body image.

Visual Rating Scales

Muscular Model Peters and Phelps' (2001) Muscular Figure Rating was used as a visual representation of the muscular ideal (See Appendix D.). The Muscular Figure Rating is composed of nine figures that represent the women's body from untoned (1) to toned (9) figures. High scores on the Muscular Figure Rating scale indicate participants view themselves as having a muscular body.

Thin Model Bhuiyan and colleagues (2003) Figure Rating Scale, which was used as a visual representation of the thin ideal (See Appendix E.). The Figure Rating Scale is composed of nine figures that represent the women's body from thin (1) to fat (9). High scores on the Figure Rating Scale (Bhuiyan et al., 2003) indicate participants view themselves with a fat body figure.

Perception Scale Followed by each visual rating scale is a perception scale. The perception scale is made up of two rankings: a personal ranking and a desired ranking. The personal ranking is the participant's closest representation of her current self on the visual rating scale (1-9). Two alternative options were given for the personal ranking if participants did not agree that the visual representation included their body image. A score of 0 indicated participants believed they were smaller than the visual scale and a score of 10 indicates they believe they were larger than the visual scale. (See Appendix F.)

Eating Disorder Symptoms Survey The Eating Attitudes Test (EAT-26), which was created by Garner et al. (1982), was used to measure eating disorder symptoms. The EAT-26 is a 26 item measure that is answered along a six-point Likert scale from 1 (*always*) to 6 (*never*). In addition to the 26-item measure are four yes or no questions to measure a more specific area of distortion or disorders with eating. On the first 25 items, participants' scores range from 0 to 75. High scores on the first 25 items of the EAT-26 mean that participants have many symptoms of eating disorders. The 26th item differs in that a high score indicates fewer symptoms of eating disorders. Participants' scores range from 0 (*Always to Often*) to 3 (*Never*) on this item. (See Appendix G.)

Procedures

The current study is a two-group within- and between-subjects design. The data from participants who do not complete the full study will be analyzed as between-subjects. Participants will be randomly assigned which order they receive the muscular ideal and the thin ideal model. Each participant will begin the study with the demographics survey. Participants who receive the muscular ideal first will then complete the body measurement scale for the muscular model. These participants will view the Muscular Figure Rating Scale (Peters & Phelps, 2001) and then complete the perception survey. Participants will finish the muscular model by completing the EAT-26 (Garner et al., 1982).

Participants will be informed through Study Board that the study requires two parts for full credit. They will be asked to return back to the laboratory two weeks after completing the first part. Participants will schedule part two at the end of part one. Participants will then receive the thin ideal, which consists of the body measurement

scale for the thin model, Bhuiyan et al.'s (2003) Figure Rating Scale, and the perception survey once more in that order. Participants complete the thin model by filling out the EAT-26 (Garner et al., 1982) as well. Conditions will be reversed if participants are assigned the thin model first. Participants will be debriefed and thanked for completing the study.

CHAPTER 3

RESULTS

A sample of college-aged females ranging from 18 to 25 years old ($M = 19.00$, $SD = 1.59$) was collected to analyze how two different body image surveys would affect women's self-image and eating disorder symptoms. This sample included predominantly Caucasian females with an average weight of 152.72 pounds ($SD = 52.83$) and an average height of 68.30 inches ($SD = 15.88$). Overall, 34 women participated in the study ($N = 34$). There were only eighteen which completed both surveys in the study; these women's data were analyzed using a within-subjects design ($n_1 = 18$). Data for those who only completed one of the surveys randomly assigned to them were analyzed using a between-subjects design.

The independent measure, body scale (thin-fat or muscular), was tested for an effect on several different dependent measures. The average scores on the EAT-26 was used to test if a muscular perspective lowers eating disorder symptoms in college-aged women. A two-sample t -test was conducted to test this claim. When testing for the difference between means of all participants, Table 1 shows that there is insufficient evidence to conclude eating disorder symptoms are higher after taking the thin-fat survey, relative to the muscular survey, $t(46.44) = -0.26$, $p = .40$.

In addition to the EAT-26 measures, a visual scale for each body type was given, and participants rated how they think their body shape is currently (actual) and how they wish they looked (preferred) on a scale ranging from 0 to 10. Both of these ratings were used as dependent measures to see if two different types of body rating scales (IV) had an effect on how women see their body shape and whether they are happy with how they look (DVs). It was hypothesized that women would rate themselves better on the muscular scale than the thin-fat scale (or lower assuming women want to be smaller due to media's influence) and that participants would be happier with their body shape when comparing it to a muscular scale. In other words, women would not want to change the rating they gave for their actual rating when asked what body shape they would prefer to look like, or that the change (actual-preferred) is less significant on the muscular scale than the thin-fat scale.

To test the claim that women rate their body shape better (lower for a smaller body type) on the muscular scale, first the dependent sample alone was analyzed using a two sample *t*-test. Comparisons between women's average muscular rating and their thin-fat rating were not statistically significant, $t(34.51) = 0.64, p = .74$ (refer to Table 1). Adding in the data from participants who only completed one survey to increase the sample size ($n_1 = 18, N = 34$) did not change the conclusion; however, it did lower the *p*-value, $t(48.62) = 0.98, p = .33$. Also shown in Table 1, the mean of women's body shape ratings on the muscular scale are not statistically smaller than the average ratings on the thin-fat scale.

To conclude if there was a difference in the muscular scale ratings and thin-fat ratings, the dependent sample was analyzed with a one sample *t*-test. The hypothesis that

women’s symptoms of eating disorders would be affected in any way by the scale variable was tested here. There is insufficient statistical evidence that a woman’s body shape rating is different based on the scale, $t(17) = .54, p = .59$ (refer to Table 1). When including the data from those who only completed part of the study, the full sample analysis of a two sample t -test compared the difference between the mean of muscular ratings and the mean of thin-fat ratings and generated the same conclusion that there is no significant difference between the two means.

Table 1

Mean and Standard Deviations of Women’s ED Symptoms and Body Image Rating

Measure	Mean	Standard Deviation
Thin ED	7.15	6.75
Muscular ED	6.69	5.33
Thin actual rating (dependent sample)	5.05	2.04
Muscular actual rating (dependent sample)	5.50	2.18
Thin actual rating (full sample)	4.74	1.89
Muscular actual rating (full sample)	5.28	2.07

The same process was done to examine how the scales affect how happy women are with their body shapes. First, a paired t -test was run on the dependent sample to determine if a difference exists between means of how much participants want to change on the muscular scale and their desired change on the thin-fat scale. It was hypothesized that the mean score for the difference on the muscular scale would be less than the thin-fat scale. As shown in Table 2, results indicate there was no statistically significant association between the muscular rating scale and women’s happiness with their body shape, $t(17) = 0, p = 0.5$. In separate analyses, the data from participants who only

completed one survey was added, and the data was analyzed as a between-subjects two sample *t*-test. The results regarding associations between muscular rating scale and women’s happiness with their body over the thin scale were not statistically significant, $t(17) = -0.67, p = .26$ (refer to Table 2).

To determine if there is a difference between how a woman looks and wants to look based on the scale, a two sample *t*-test was run on the mean differences between actual and preferred rating of each scale. There is no significant associations between scores on the scales and women’s happiness with their body image, $t(48.655) = -0.58, p = .56$ (refer to Table 2). In addition to the independent variable body scale, analyses were run to see how the randomly assigned order of the scales effected the three dependent measures discussed.

Table 2

Mean and Standard Deviations of How Women Want to Change Based on the Scale

Measure	Mean	Standard Deviation
Difference on Thin (dependent sample)	1.32	0.89
Difference on Muscular (dependent sample)	1.30	1.53
Difference on Thin (full sample)	1.57	1.38
Difference on Muscular (full sample)	1.34	1.51

A simple linear regression was run to determine if the order the scales were given in results in a difference in eating disorder symptoms for the two scales. There was not a statistically significant relationship between the order of administration of measures and eating disorder symptoms, $t(14) = 0.68, p = .51$. Order was also analyzed in a simple linear regression to determine if it led to a difference in muscular scale ratings versus

thin-fat ratings. Regardless of the analysis being done with the dependent sample or the full sample, results were not statistically significant to conclude a difference in muscular rating scales compared to thin-fat ratings, $t(16) = 0.32, p = .76$ and $t(16) = 0.57, p = .58$ respectively.

CHAPTER 4

DISCUSSION

The current study's objective was to determine how two different scales used to represent women's body shape would affect their body image and their risk of developing an ED. It was hypothesized that the thin scale would cause higher ED symptoms and a more negative body image than would high scores on the muscular scale. The two hypothesized effects of the thin scale were based on two major concerns for the female population. Results were not statistically significant to support either one of the hypotheses, but even weak trends suggest the study's methodology has value. Discussion of this point will follow.

Hypothesis 1, that the thin scale would cause higher ED symptoms, was not supported by analyses. It was not found that women are at higher risk of an ED because media influences a thin ideal. Although studies show media is reaching this population more and more easily each day (Parson, 2013), this may not be the reason EDs are most common in college-aged women. The current study intended to build upon the findings of DeBraganza and Hausenblas (2010), who indicated that this thin-fat perception is positively correlated with ED symptoms. It was hypothesized that there would be positive correlation with a thin-fat perception and a negative or no correlation with a muscular perspective; to date, this has not been addressed. Unfortunately, results were not

statistically significant. For this sample there was no difference in how the two measures affect ED symptoms and, therefore, it cannot be concluded from this study that eating disorder symptoms are higher because of media's influence of a thin-fat perspective compared to a more muscular perspective.

Although this effect of a thin scale on ED symptoms was not found directly, other trends related to the two different scales are promising for further analysis. In addition to the EAT-26, which measured ED symptoms, a visual scale for each independent variable was given to evaluate body image. It was hypothesized secondly that women would rate themselves higher, leading to better body image on the muscular visual scale. Results regarding the difference between visual scales were not significant, but they were much closer to significance and correlations are promising.

The APA (2015) suggests almost everyone worries about their weight at times. but the most significant population affected by these worries is women. The population of people worrying about their body with an ED are ninety-percent college-aged women (ANAD, 2015), but, according to the current study, this cannot necessarily be attributed to media's thin influence on this population. There was no difference found between how women rate themselves based on media's thin scale compared to a muscular scale. It cannot be concluded from this study that women rate themselves higher on the muscular scale than the thin scale, as predicted.

Analyses were ran on the sub-sample of participants who completed both scales first. It was hypothesized that results would be stronger for this dependent sample because body image is very personalized, and it was expected that adding in data evaluated with a between-subjects design would hinder this theory. Surprisingly, the

opposite was found. The results for a difference between how women rate themselves on each scale are not far from significance when considering those who did not return to complete the second scale. This finding may be due to the increase in sample size when adding values from the dependent sample using a between-subjects design.

In addition to evaluating how women think they look (rating on visual scales), two main scores were used to conclude if women were happier with their body shape when asked if they would like to change it based on each scale. It was hypothesized that women would be happier with their body when comparing it to a muscular scale. Results of analyses did not support this third hypothesis. It cannot be concluded from this study that women are less likely to want to change their body when looking at a muscular scale. Although results were not significant, the correlations are not far from finding an effect. The t -value for the claim that the muscular scale results in lower difference values (women want to change their body less) is not far from the .1 significance level.

Even though results of t -tests and correlations were not significant, Figures 1 and 2 illustrate a difference between how much a woman wants to change her body dependent on each scale. The muscular rating scale resulted in negative values for this change, whereas the range of the thin scale for these values are 0 and above. This means that there were participants who wanted to get larger than how they rate themselves on the muscular scale, but those same participants did not feel this way when taking the thin scale and survey. Wanting to be larger than you are may result in other negative body image effects and disorders, but it is clear from the differences in these charts that the two scales do not affect women in the exact same manner. With a larger sample size, this may

be evidence of a trend that women are idealizing this thin body and that women generally want to get smaller with a thin scale than they do with a muscular scale.

Figure 1. Difference between Ratings on the Thin to Fat Scale

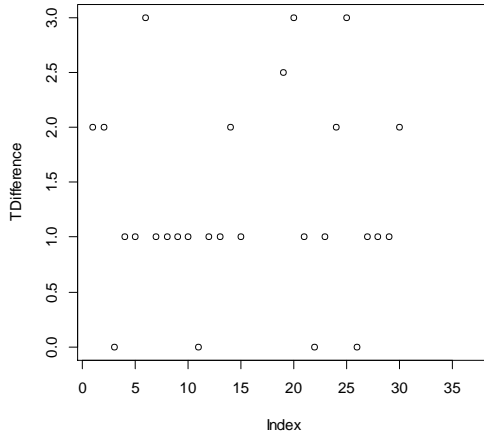
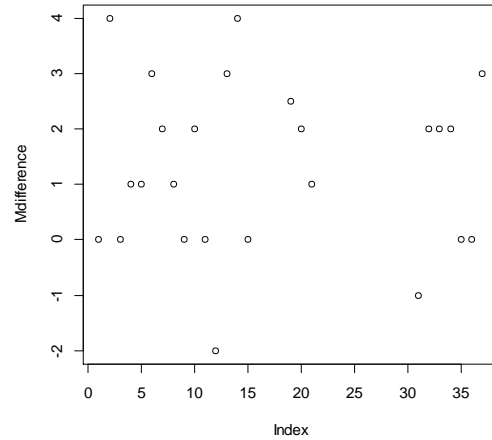


Figure 2. Difference between Ratings on Muscular Scale



Media is a rapidly growing means for companies to reach consumers (Parsons, 2013). With the tremendous growth, it is important to be aware of the effects media has on people. The current study hypothesized that the ideals media conveys to young women are negative and intended to find a way to improve them. With how quickly media reaches this population, it is essential the information given is positively affecting their health and well-being and not undermining it. Past research suggests this is not occurring (ANAD, 2015; DeBraganza & Hausenblas, 2010; Pritchard & Cramblitt, 2014; & Serdar, n.d.).

The current study differs from past research in that it aimed to find a more positive influence media could be portraying if the current one is causing ED symptoms and negatively affecting body image in women. Such findings are important to change

the way women feel about themselves. If media's thin-ideal influence could be shown to lead to EDs and negative body image which may lead to other unhealthy actions in women, companies and advertisements portraying this influence may finally be stopped. Examples of these companies are weight loss companies selling diet supplements or advertising unhealthy ways to get thin fast (Women's Health Magazine, 2015 & Shape Magazine, 2015). Most of these ideas for ways to get thin that media conveys to young women are not only unhealthy but unattainable (Serdar, n.d.).

Women are influenced to believe they should look like models who are generally underweight (Pritchard and Cramblitt, 2014) and Pro-Anorexia, Pro-Bulimia, and Pro-Eating Disorder groups exist online that influence women to take unhealthy action to get that way (ANAD, 2015). In the end, most women do not reach the goal media influences them to strive for (Serdar, n.d.). One rarely sees advertisements with women who have a muscular body image; inclusion of such role models was hypothesized in this study to improve women's body image and decrease ED symptoms because it is a more attainable goal and a healthier way to lose weight if done correctly.

Limitations

Further research with a better return rate and a larger sample size would more than likely lead to support the hypotheses because when including data of the between-subjects design, results were close to significance. With a larger sample size, results may be significant to conclude the muscular scale has a more positive effect on women's body image than a thin-fat scale and lowers ED symptoms. These results would be more consistent with previous literature in this area. In addition to the small sample size and few returns, there are other potential problems with data collection. Although the internal

validity for measures were appropriate, the validity between measures was not tested. The lack of statistical significance of a difference between woman's ratings on each scale may be due to the difference between the scales used for this study and not the hypotheses of the scales themselves.

Future research should test for a fair comparison between visual representation of the thin-fat and muscular scale. There is also a potential problem in representing what scores on the visual scales mean. We test for correlations and differences between scales, but we cannot be certain to conclude 0 is the "best" and 10 is the "worst" for each scale. It is possible that 0 on the thin-fat scale is too small and not commensurate with 0 on the muscular scale. To make this conclusion, we assume all women, regardless of what is healthy, want to be as small as they can be. Considering the background of this study, it is sufficient to assume not all women are aware of what is dangerously small and what actions are dangerous to take to get there. However, if these scales were not compatible, there should have been a difference in ratings, even if it was due to something other than its effect on body image.

Conclusion

The lack of statistically significant findings on measures that past research has already found to be true is a good sign that this sample is not a large enough sample, $r(24) = -.0279$, $p = .8922$. Increasing sample size may help to make conclusions based on the muscular perspective. With a larger, more representative sample, it is expected that findings would build upon previous research on the positive correlation between media's thin to fat influence and discover a new perspective that could decrease ED symptoms and increase positive body image in women. In conclusion, the results of this study did

not provide evidence for the media's thin ideal influence increasing risk for an ED or negatively affecting body image more than a muscular influence.

REFERENCES

- Ambwani, S., & Chmielewski, J.F. (2012). Weighing the evidence: Social desirability, eating disorder symptomatology, and accuracy of self-reported body weight among men and women. *Sex Roles, 68*, 474-483.
- American Psychological Association. (2015). *Eating disorders*. Retrieved from <http://www.apa.org/topics/eating/>.
- Cieply, M. (2009, April 18). What's the skinny on the heftier stars?. *The New York Times*, p. C1. Retrieved from http://www.nytimes.com/2009/04/18/movies/18bulk.html?_r=4&ref=arts&.
- DeBraganza, N. & Hausenblas, H.A. (2010). Media exposure of the ideal physique on women's body dissatisfaction and mood: The moderating effects of ethnicity. *Journal of Black Studies, 40*, 700-716. Retrieved from <http://jbs.sagepub.com.libsrv.wku.edu/content/40/4/700.full.pdf+html>.
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine, 12*, 871-878.
- Glamour*. (2015, August). Cover.

- Grieve, F. G. (2007). A conceptual model of factors contributing to the development of muscle dysmorphia. *Eating Disorders, 15*, 63-80.
- Grieve, F. G., & Bonneau-Kaya, C. M. (2007). Weight loss and muscle building content in popular magazines oriented toward women and men. *North American Journal of Psychology, 9*, 97-102.
- Grieve, F. G., Wann, D., Henson, C. T., & Ford, P. (2006). Healthy and unhealthy weight management practices in collegiate men and women. *Journal of Sport Behavior, 29*, 229-242.
- Lewis, T. (2013, August). *BMI not a good measure of healthy body weight, researchers argue*. Retrieved from www.livescience.com/39097-bmi-not-accurate-health-measure.html
- Men's Health*. (2015, August). Cover.
- National Association of Anorexia Nervosa and Associated Disorders, Inc. (2015). *Eating disorders and the internet*. Retrieved from <http://www.anad.org/get-information/eating-disorders-and-the-internet/>.
- National Association of Anorexia Nervosa and Associated Disorders, Inc. (2015). *Eating disorder statistics*. Retrieved from <http://www.anad.org/get-information/about-eating-disorders/eating-disorders-statistics/>.
- Olivardia, Roberto. (2001). "Mirror, mirror on the wall, who's the largest of them all?" The features and phenomenology of muscular dysmorphia. *Harvard review of Psychiatry, 9*, 254-59.

Parsons, A. (2013). Using social media to reach consumers: A content analysis of official Facebook pages. *Academy of Marketing Studies Journal*, 17, 27(10).

Peters, M. A., & Phelps, L. (2001). Body image dissatisfaction and distortion, steroid use, and sex differences in college age body builders. *Psychology in the Schools*, 38, 283-289.

Pritchard, M. & Cramblitt, B. (2014). Media influence on drive for thinness and drive for muscularity. *Sex Roles*, 71, 208-218.

http://www.academia.edu/9583451/Media_Influence_on_Drive_for_Thinness_and_Drive_for_Muscularity.

Reuters. (2015, April 3). Anorexia crackdown: France bans fashion models who are too thin. NBC News. Retrieved from <http://www.nbcnews.com/news/world/anorexia-crackdown-france-bans-fashion-models-who-are-too-thin-n335091>.

Serdar, K.L. (n.d.). Female body image and the mass media: Perspectives on how women internalize the ideal beauty standard. *The Myriad: Westminster Online Journal*. Retrieved from <http://www.westminstercollege.edu/myriad/index.cfm?parent=...&detail=4475&content=4795>.

Shape. (2015, August). Cover.

Women's Health. (2015, August). Cover.

Appendix A

Demographics Survey

PLEASE CIRCLE OR FILL IN THE APPROPRIATE INFORMATION.

GENERAL INFORMATION

1. AGE: _____

2. GENDER: MALE

FEMALE

3. ETHNICITY: WHITE/NON-HISPANIC

AFRICAN AMERICAN

HISPANIC

ASIAN

MIDDLE EASTERN/WEST ASIAN

NATIVE AMERICAN

PACIFIC ISLANDER

BIRACIAL/MULTIRACIAL

OTHER

4. EDUCATIONAL LEVEL: FRESHMAN

SOPHOMORE

JUNIOR

SENIOR

GRADUATE

5. Height _____

6. Weight _____

PLEASE CIRCLE THE RESPONSE THAT YOU FEEL BEST RELATES TO YOU.

1. I have trouble finding clothes that fit me when shopping at the mall.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

2. My body size stands out from my friends' in pictures.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

3. I am made fun of for my weight.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

4. I am larger than most of my friends.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

5. I am tired after walking up stairs.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

6. I am comfortable in a bathing suit.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

7. I consider myself overweight.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

Appendix B

BODY MEASURING SCALE

PLEASE CIRCLE THE RESPONSE THAT YOU FEEL BEST RELATES TO YOU.

1. Exercise 2-3 times a week is important to me.

Strongly Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree
Disagree

2. Toning my body is important to me.

Strongly Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree
Disagree

3. I *do not* feel abs are an important feature to the body.

Strongly Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree
Disagree

4. I admire people who are strong.

Strongly Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree
Disagree

5. I would rather lift weights than eat healthy to lose weight.

Strongly Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree
Disagree

Appendix C

BODY MEASURING SCALE

PLEASE CIRCLE THE RESPONSE THAT YOU FEEL BEST RELATES TO YOU.

1. It is *not* important to me to be the smallest size in clothes that I can be.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

2. Losing weight is the only reason I would work out.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

3. I *do not* care about the measurement of my waist.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

4. I am jealous of models' bodies.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

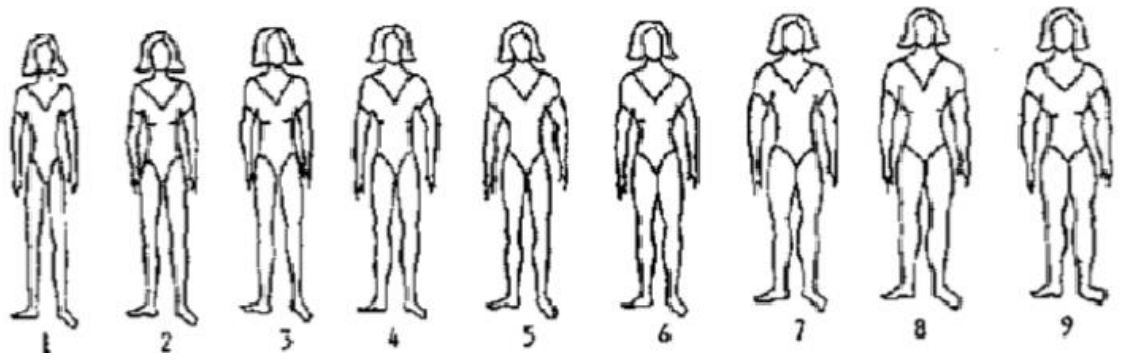
5. I would not be insulted if people thought I was shaped like a twig.

Strongly Disagree Disagree Somewhat disagree Neutral Somewhat agree Agree Strongly Agree

Appendix D

Muscular Figure Ratings (Peters & Phelps, 2001)

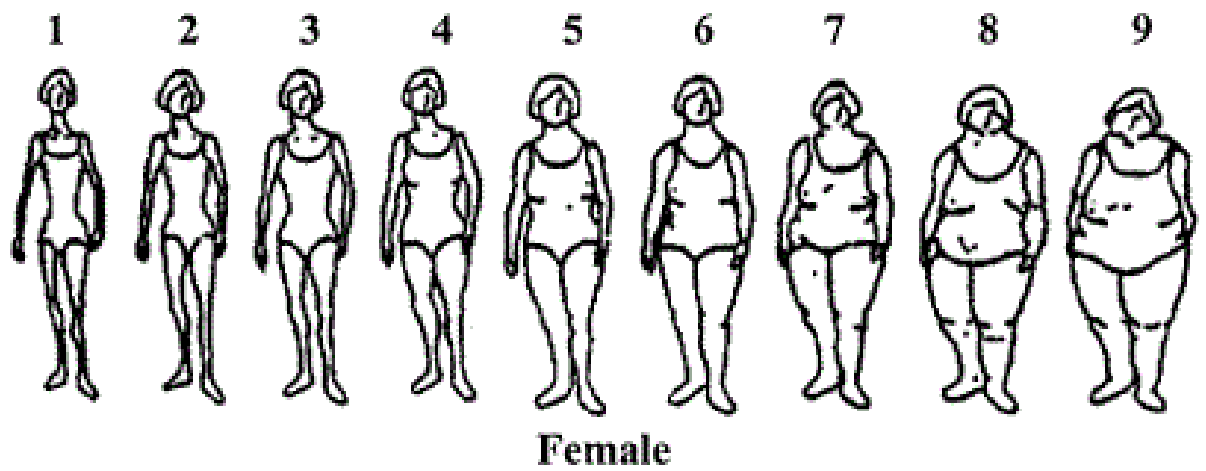
Instructions: Please choose one body which looks the most like you to respond to each question on the perception scale below.



Appendix E

Figures Rating Scale (Bhuyian et al., 2003)

Instructions: Please choose one body which looks the most like you to respond to each question on the perception scale below.



Appendix F

Perception Scale

Please indicate a value 1-9 that you feel best resembles your body shape. _____

If you do not fall on this scale, 0 can also be indicated for a body shape to the left of the scale or 10 for a body shape to the right.

Please indicate a value 1-9 that you would prefer your body's shape to resemble. _____

If you feel you resemble the same body shape as you would like to have, please record the same number for both questions.

Appendix G

EAT-26 (Garner et al., 1982)

Please choose one response by marking a check to the right for each of the following statements:

Always Usually Often Sometimes Rarely Never Score

1. Am terrified about being overweight. _____
2. Avoid eating when I am hungry. _____
3. Find myself preoccupied with food. _____
4. Have gone on eating binges where I feel that I may not be able to stop. _____
5. Cut my food into small pieces. _____
6. Aware of the calorie content of foods that I eat. _____
7. Particularly avoid food with a high carbohydrate content (i.e. bread, rice, potatoes, etc.) _____

8. Feel that others would prefer if I ate more. _____
9. Vomit after I have eaten. _____
10. Feel extremely guilty after eating. _____
11. Am preoccupied with a desire to be thinner. _____
12. Think about burning up calories when I exercise. _____
13. Other people think that I am too thin. _____
14. Am preoccupied with the thought of having fat on my body. _____
15. Take longer than others to eat my meals. _____
16. Avoid foods with sugar in them. _____
17. Eat diet foods. _____
18. Feel that food controls my life. _____
19. Display self-control around food. _____
20. Feel that others pressure me to eat. _____
21. Give too much time and thought to food. _____
22. Feel uncomfortable after eating sweets. _____
23. Engage in dieting behavior. _____
24. Like my stomach to be empty. _____

25. Have the impulse to vomit after meals. _ _ _ _ _

26. Enjoy trying new rich foods. _ _ _ _ _

Behavioral Questions: In the past 6 months have you:

Yes No

A. Gone on eating binges where you feel that you may not be able to stop? (Eating much more than most people would eat under the same circumstances)

If you answered yes, how often during the worst week: _____

B. Ever made yourself sick (vomited) to control your weight or shape? If you answered yes, how often during the worst week: _____

C. Ever used laxatives, diet pills or diuretics (water pills) to control your weight or shape? If you answered yes, how often during the worst week? _____

D. Ever been treated for an eating disorder? When: _____