Undergraduate Women's Self-Reported Body Image After Exposure to Weight-Related versus Nonweight-Related Media Images

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Abstract

The proposed study aims to determine whether there is a relationship between exposure to weight-related media images and self-reported body image. About 60 undergraduate women at Bowling Green State University will participate in the study. Half of these women will view five weight-related media images and the other half will view five nonweight-related media images. After exposure to either the experimental or control condition, the women will be asked to complete the Body Ideals Questionnaire as well as reveal their age, year in school, race/ethnicity, and number of women’s studies courses taken on a survey. Correlational data will be obtained from the survey and questionnaire. It is hypothesized that women exposed to the weight-related media images will report higher scores on the Body Ideals Questionnaire, indicating high importance placed on various features of their body along with a large difference between that part of their body and their ideal image of that feature. It is also hypothesized that Caucasian women will report higher BIQ scores than women of color, younger women will report higher BIQ scores than older women, and women exposed to more education about media effects on women (i.e. more women’s studies courses) will report lower scores on the BIQ.

Literature Review

Idealized standards of beauty are defined by, “a group of the most desired physical traits in American girls/women” (“Ideal Standard Of Female Beauty | girlfuture.com, 2014). The media capitalizes on these agreed upon attractive features in order to sell clothing, fragrances, food, alcohol, and cars, among other products. Recently, models have become increasingly thin. Studies have been done measuring the waist-to-hip ratio of Playboy centerfolds, and from 1959 to 1989, the ratio decreased so much so that if it were to decrease any more, it would be unhealthy (Owen, 2000). Over the last 20 years, models have gone from being, on average, 8%
lighter than the average woman to now being, on average, 23% lighter than the average woman ("Media Influence", 2014). This dramatic change in the weight of women in the media is cause for concern, as women now idealize the unrealistic shape of underweight models and actresses. An eating disorder clinic called Rader Programs reports that when women are asked to identify an ideal body, 74% will choose a model that is at least 10% underweight ("Media Influence", 2014). Because of the recent changes in media depictions of women and increased body dissatisfaction in women, many studies have been done to analyze the relationship between media exposure and body image.

A study by Cusumano and Thompson (1997) found that internalization of media messages to lose weight, such as advertisements for diets or weight loss correlated with greater body dissatisfaction. This is one of many studies that note the importance of women’s acceptance of and belief in idealized standards of beauty. A major concern of researchers is restrictive eating and the onset of eating disorders. According to the National Association of Anorexia Nervosa and Associated Disorders, 91% of college women surveyed reported dieting to control their weight. Of the students surveyed who indicated struggles with eating disorders, 86% met the criteria for diagnosis of an eating disorder before the age of 20 ("ANAD", 2014). In a study conducted by Krahé and Krause (2010), results showed that undergraduate women were more likely to choose a diet snack after exposure to advertisements that showcased thin models. This result was extremely interesting because Krahé and Krause controlled for, “habitual restrained eating” (2010). This means that regardless of a history of dieting, women in the experimental condition with exposure to thin models were more likely than the women in the control group to display food-restricting behavior. Studies such as these indicate an important link between eating disorders and the depiction of women in the media.
An experiment by Harper and Tiggemann (2008) researched a different aspect of media effects on women. Rather than focus on eating habits and body dissatisfaction exclusively, Harper and Tiggemann found that exposure to thin models in media images resulted in significantly greater negative affect than individuals exposed to the control condition (2008). This finding is interesting as it relates to body image because it indicates that media images can have an overall effect on aspects of mood and personality. Changes in mood and an increased negative affect in combination with high body dissatisfaction could lead to depression, anxiety, and eating disorders (Harper & Tiggemann, 2008).

A meta-analysis study by Holmstrom (2004) revealed several methodological inconsistencies in research involving media effects on body image in women. The term, “body image” is defined by multiple measures and definitions. It covers a vast range of possible variables such as body dissatisfaction, food restriction, overestimation of body size, etc. (Holmstrom, 2004). Also, it is difficult to compare the media that have been used to study effects on body image because some studies utilized still images and advertisements from magazines while others showed clips from movies and television commercials. In the end, the study did not find significant negative effects of media exposure on body image. Though results were not significant, hypotheses were developed in order to account for the inconsistent results and to provide a direction for future research in this area. In the study, social comparison was mentioned as a possible reason for a relationship between media exposure and body image (Holmstrom, 2004). This is an area that needs to be studied more in order to determine whether comparison to women depicted in the media is related to higher body dissatisfaction.

A study by Dittmar, Halliwell, and Stirling approached body image research from a framework that focuses on the internalization of thin body ideals. The study found that women
who wish to be thin have a higher likelihood of experiencing negative effects after media exposure to thin models (2009). An interesting point made in this research was the fact that models are getting thinner, while the general public is getting heavier. With this, there is a larger discrepancy between idealized standards of beauty depicted in the media versus weight and size of the average woman. This large difference between actual and ideal weight along with internalization of images of thin models was predicted as the cause for detrimental effects of media exposure on body image (Dittmar et al., 2009).

Proposed Study

The proposed study seeks to examine the relationship between college women’s self-reported body image and exposure to weight-related stimuli. The survey that will be used to measure the dependent variable, body image, is the Body Ideals Questionnaire (see appendix B). It asks questions directed at how closely a particular part of the body matches the participant’s ideal of that part of the body. It also asks how important it is for the participant to attain his or her ideal perception of that part of the body. What is unique about this survey is that it evaluates the importance of the participant’s belief about parts of his or her body. This questionnaire is relevant to the proposed study because it assesses the difference between the ways in which women perceive their bodies as opposed to what they wish it looked like. After exposure to weight-related stimuli, it is hypothesized that the participants will report higher BIQ scores because the images will illustrate differences between reality and idealized standards of beauty as depicted by the media. The control group is hypothesized to report lower scores on the questionnaire because there will be no social comparison to the bodies of other women.

60 undergraduate women at Bowling Green State University are planned to participate in the study. These women will be recruited from student organizations that are directed toward
women, such as sororities. Half of the women will be exposed to five weight-related media images (see appendix A) for ten seconds each with a ten second break in between each image. The media used in this study are still images. These photos are comparable to what would generally appear in women’s magazines, and they depict thin women. One of the ads promotes weight loss, and the other four are ads for clothes and perfume. The images contain women with very thin waists and thighs. These images were chosen for the experimental condition because they follow idealized standards of beauty, and they are the types of ads that women are commonly exposed to. The other half will be exposed to five non weight-related media images (see appendix A) for ten seconds each with a ten second break in between each image. These images do not depict humans. They are advertisements for cars, alcohol, cleaning supplies, appliances, and furniture. These ads were used as a control because they do not offer the opportunity for social comparison.

The study will be conducted on Bowling Green State University’s campus in a classroom using a projector to view the images. Approximately ten women will view the images at a time. After exposure to the images, there will be a brief, 2-minute break before the administration of the survey. Upon completion of the survey, women will be free to leave. Only women who are over the age of 18 will be eligible to participate in the study. Participation in the study is strictly voluntary, and the decision to cease participation in the study and/or refusal to answer any survey questions will not lead to any punishment or action by the university.

After participants have completed the study, results will be entered into a computer spreadsheet. The computer is password locked, and paper copies will be discarded. A one-way ANOVA will be run to analyze the data from the BIQ and determine whether a statistically
significant \( (p < .05) \) relationship exists between exposure to weight-related media images and scores on the questionnaire.

Along with the BIQ, participants will be asked to report their age, year in school, race/ethnicity, and any women’s studies courses taken to obtain correlational data. With respect to these questions, it is hypothesized that younger women will report higher scores on the BIQ in response to the weight-related images than older women. Similarly, it is hypothesized that women in their first or second year in school will report higher scores than those in their third or fourth year in response to the weight-related images. This is simply because these women will have had less exposure to education about media representations of women and idealized standards of beauty. The hypothesis regarding ethnicity/race is that Caucasian women will report higher scores on the BIQ in response to the weight-related stimuli than other races/ethnicities. A study by DeBraganza and Hausenblas showed that Caucasian college women tend to report lower body satisfaction at baseline and showed significantly decreased body satisfaction after viewing media images of thin models, as where African American college women did not indicate any change in self-reported body image after exposure to media image and reported higher body satisfaction at baseline (2010). The hypothesis is consistent with the results of this study. Finally, it is hypothesized that women with exposure to women’s studies courses will report lower scores on the BIQ in response to the weight-related stimuli because of increased awareness about idealized standards of beauty. As with any correlational study, though causation for any of these results cannot be drawn from this data.

A possible strength of this study is the use of the Body Ideals Questionnaire because its aim is to determine whether a person’s body is in accord with his or her ideal self-image. This is applicable to the proposed study because presentation of weight-related media images that
promote idealized standards of beauty may have an effect on women’s perceptions of their own body and their ideal body. Comparison between the media image and the participants’ bodies may result in their idealized body becoming similar to the one that is depicted by the weight-related media images. The BIQ has been assessed for both validity and reliability as stated in the BIQ Users’ Manual (Cash & Szymanski, 1995).

A possible limitation of this study is the correlational data. The statistics regarding age, year in school, race/ethnicity, and women’s studies courses taken will not reveal causation. Regardless, important implications may be drawn from any relationships that exist among these variables, and these relationships could guide future research. Another limitation is the inability to generalize the results to all college-aged women. Beyond just college women, the results of this study will not be able to be generalized to all American women. Significant findings may arise, and if that is the case, then important implications could be drawn, but these findings will not be able to be assumed for all American women who are exposed to media. More research involving different generations of women could be done in the future to determine long-term effects of media exposure on body image.

Another possible limitation of the study is the inability to determine which kind of media exposure is the most detrimental. This study uses still images that advertise clothing, perfume, and diet pills that could be seen in a magazine. If women are not regularly exposed to these sorts of images, then this kind of media exposure may not have a large impact. In future studies, multiple experimental groups could be used to determine whether still images or video clips have more of an effect on self-reported body image. Additionally, survey questions could be added asking how much time participants report watching television and reading magazines. Another
question could ask whether participants feel that they tend to compare themselves more to models on television or in photos.

**Potential Results and Discussion**

As stated, it is hypothesized that women exposed to the weight-related media images will report higher scores on the Body Ideals Questionnaire. Scores on the questionnaire range from -3, indicating that the participant’s body is in accord with her ideal and that each part of the body mentioned in the questionnaire is deemed highly important, to 9, indicating that the participant’s body is not in accord with her ideal and that each part of the body mentioned in the questionnaire is deemed highly important. It is predicted that there will be a statistically significant (p < .05) difference between the scores of women who viewed the weight-related images and the women who viewed the non weight-related images. If this is the case, then there could be a statistically significant relationship between exposure to weight related media images and negative body image. If this is the result, then further research could be done to examine which parts of the body seem to be most important to women and seem to be the most dissimilar to women’s ideal. Perhaps media images that depict idealized size, shape, color, etc. of these parts of the body have the biggest impact on women’s body image. Again, it will be difficult to generalize these results to all college-aged women, especially if certain media target certain parts of the body, and therefore affect each woman differently.

If results support the hypothesis, then further research should be aimed at identifying factors that counteract the negative effects of media exposure on body image in college-aged women. Research indicates that education about the media’s portrayal of women may help combat the negative effects of exposure to idealized standards of beauty. Haas, Pawlow, Pettibone, and Segrist found that, “informing women about what the average female really looks
like and about the alterations of images in the media may have had a positive effect on women’s views about their own bodies” (2012). To date, not much research has been done in this area to examine the effect of education about women in the media after exposure to media images. This would be a logical next step in research to determine ways to decrease negative effects of media on body image.

There are several factors that could lead to results that differ from what has been hypothesized. Similar to the point made above about the targeting of specific body parts by media, it could be that the parts of the body that are depicted in the images used for this study are not of high importance to the participants. For example, the images used in the study focus highly on the abdomen and legs. If the participants are most dissatisfied with their face or texture of their hair, then these images may not elicit the adoption of what is presented in the media as the ideal for her body. Other factors such as previous exposure to education about media depictions of women and thus heightened awareness of the possibility for negative effects on body image may interfere with the results as well. It is for this reason that the participants are asked to report the number of women’s studies classes that they have taken. Similarly, there is only one image of the five weight-related media that depicts a woman of color. For this reason, Caucasian women may report higher scores on the BIQ because of increased comparison to images of Caucasian women. This could be a possible confound in either condition depending upon the distribution of women in the control or experimental condition. For example, if there are a high number of women of color in the experimental condition, the overall scores may be lower than if the majority of the participants in the experimental condition had been Caucasian. Another possible result could be that a relationship between weight-related media images and body image truly does not exist.
If results do not support the hypothesis, it may be interesting to look into the research that indicates that media exposure may correlate with higher body satisfaction in women. Though this area of research is small and largely contested by the majority of research that suggests otherwise, a study by Knobloch-Westerwick and Crane found that prolonged exposure to media images of women led to higher body satisfaction over time (2012). What is disconcerting about the results of this study is that women increased dieting behavior as a result of exposure to the thin models. It could be that social comparison drives women of average weight or who are overweight to attain the thin ideal set out by the media, so they diet and exercise more in order to achieve that weight. This could lead to temporary feelings of body satisfaction as initial weight-loss occurs, but studies show that individuals who diet rarely keep the weight off long term and often end up gaining more weight in the future (Knobloch-Westerwick & Crane, 2012). This is an important point to consider if results are not in support of the hypothesis. More research needs to be done in order to determine whether it is more likely that social comparisons lead to body satisfaction or dissatisfaction. Again, regardless of the results, it is difficult to generalize results to an entire population in research such as this.

Conclusion

In conclusion, the proposed study is examining the relationship between exposure to weight-related stimuli and self-reported body image. Overall, research suggests that media exposure leads to higher body dissatisfaction in women, but new research may indicate the opposite. In this study, the measure that is being used allows the participants to rate how important individual physical features are and how closely those features match their ideal self-image. The hypothesis is that social comparison to the models in the weight-related images will lead to higher Body Ideals Questionnaire scores among the women exposed to the experimental
condition. A one-way ANOVA will be run to determine whether there is statistical significance regarding the experimental condition versus the control condition in regards to scores on the BIQ. Correlations will be run to determine any relationships between scores on the BIQ and age, year in school, race/ethnicity, and number of women’s studies courses taken. As with all correlational studies, no causation can be drawn from the results of this part of the study. A limitation of the study is that no matter the result, the study will not generalize to all women. The importance of the proposed study is its contribution to research examining social comparison as a possible cause of poor body image.
Appendix A

Experimental stimuli:

1. [Image of Victoria's Secret advertisement]

   Meet our newest bodies.
   Body by Victoria® Racerback.
   Multi-way and Push-up.
   - shop now
   - experience the bras

2. [Image of Hydroxycut advertisement]

   “I Lost 39 lbs. Fast with Hydroxycut!”

   “Looking back at photos, it always had a smile on my face, but inside I was self-conscious. Even on my honeymoon. I finally felt confident enough to wear a bikini. I had never worn a bikini before. Hydroxycut helped me feel comfortable in my own skin. It was like I was a new woman when I started taking Hydroxycut. I lost 39 pounds in 3 months. And Hydroxycut really works fast. Bring on the beach, the wedding and the cool fashion!”

   Coolas, Sherry
   Female, 28
   Actress, Model
Control stimuli:
2. Save over 50% on the Maytag 25 Cu. Ft. Stainless Steel Ice0™ French Door Bottom-Freezer Refrigerator. Specifications include:
- Ice and water dispenser
- Temp. control Beverage Chiller™
- MFI2569VEM

SRP $2199.98
Now $999 Limit 1

3. Hit your refresh button with Bud Light.
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4.

lay off the hard stuff.
When you lay off the bottles, the bottles lay off. Ordinary window cleaners often contain significant amounts of isopropanol alcohol. That’s the stuff that makes your eyes water, your nose run, and your throat burn. So method figured out a formula for our window wash that uses as little of it as possible. When it comes to alcohol, you have to know when to say when.

methodhome.com

5.
Appendix B

1
THE BIQ
Instructions. Please read carefully:
Each item on this questionnaire deals with a different physical characteristic. For each characteristic, think about how you would describe yourself as you actually are. Then think about how you wish you were. The difference between the two reveals how close you come to your personal ideal. In some instances, your looks may closely match your ideal. In other instances, they may differ considerably. On Part A of each item, rate how much you resemble your personal physical ideal by circling a number from 0 to 3. Your physical ideals may differ in their importance to you, regardless of how close you come to them. You may feel strongly that some ideals embody the way you want to look or to be. In other areas, your ideals may be less important to you. On Part B of each item, rate how important your ideal is to you by circling a number on the 0 to 3 scale.

1. A. My ideal height is:
0 1 2 3
Exactly As Almost As Fairly Very
I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal height?
0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

2. A. My ideal skin complexion is:
0 1 2 3
Exactly As Almost As Fairly Very
I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal skin complexion?
0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

3. A. My ideal hair texture and thickness are:
0 1 2 3
Exactly As Almost As Fairly Very
I Am I Am Unlike Me Unlike Me
B. How important to you are your ideal hair texture and thickness?
0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

4. A. My ideal facial features (eyes, nose, ears, facial shape) are:
0 1 2 3
Exactly As Almost As Fairly Very
I Am I Am Unlike Me Unlike Me
B. How important to you are your ideal facial features?
0 1 2 3
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5. A. My ideal muscle tone and definition is:
   0 1 2 3
   Exactly As Almost As Fairly Very
   I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal muscle tone and definition?
   0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

6. A. My ideal body proportions are:
   0 1 2 3
   Exactly As Almost As Fairly Very
   I Am I Am Unlike Me Unlike Me
B. How important to you are your ideal body proportions?
   0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

7. A. My ideal weight is:
   0 1 2 3
   Exactly As Almost As Fairly Very
   I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal weight?
   0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

8. A. My ideal chest size is:
   0 1 2 3
   Exactly As Almost As Fairly Very
   I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal chest size?
   0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

9. A. My ideal physical strength is:
   0 1 2 3
   Exactly As Almost As Fairly Very
   I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal physical strength?
   0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important

10. A. My ideal physical coordination is:
    0 1 2 3
Exactly As Almost As Fairly Very
I Am I Am Unlike Me Unlike Me
B. How important to you is your ideal physical coordination?
0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important
11. A. My ideal overall physical appearance is:
0 1 2 3
Exactly As Almost As Fairly Very
I Am I Am Unlike Me Unlike Me
B. How important to you is your overall physical appearance?
0 1 2 3
Not Somewhat Moderately Very
Important Important Important Important
( BIQ à Thomas F. Cash, Ph.D.)
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