The Influence of Exposure to Media Images on Body Satisfaction of Males and Females

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Body satisfaction of male and female university students was examined after exposure to thin-ideal or neutral media images. Male and female participants were divided into either the thin ideal or the neutral condition groups. It was predicted that exposure to thin ideal images would lead to lower body satisfaction scores than neutral images and that women would experience lower scores than men. Participants were twenty female and twenty male students at the University of Western Ontario. Participants were given a sheet of media images then asked to fill out a booklet measuring body satisfaction. No significant main effect was found between media images but a significant main effect was found between gender $F(1, 36) = 12.99, p<0.05$, partial $\eta^2 = 0.26$. No significant interaction effect was found between gender and media images. An assessment of the study’s effectiveness and possible issues were discussed as well as topics for future studies.

The presence of unrealistic societal ideals in the mass media can lead to detrimental effects on men and women (Hargreaves & Tiggemann, 2009). These ideals provide a standard to which individuals compare and evaluate themselves. Leon Festinger proposed the Social Comparison theory which suggests that people often search out standards to which they can compare themselves. He describes two types of social comparisons; upward social comparisons, which occur when individuals compare themselves to someone whom they believe to be better off than themselves, and downward social comparisons, which occur when individuals compare themselves to someone whom they believe to be worse off than themselves (Myers & Crowther, 2009).
He proposed that upward comparisons are more likely to produce negative consequences, such as decreased body satisfaction and mood, whereas downward comparisons were likely to produce positive consequences, such as increased self-esteem (Myers & Crowther, 2009). Previous research has shown that women regularly and automatically practice upward comparison by comparing themselves to unrealistic, thin ideals of women in the media (Botta, 1999). Men have been found to be less inclined to automatically compare themselves with the thin ideals found in the media and may need encouragement to do so (Hargreaves & Tiggemann, 2009). Findings have consistently suggested that making appearance-focused upward social comparisons with media images have more negative effects than practicing social upward comparisons with peers (Myers & Crowther, 2009).

There is an overemphasis on thinness and the portrayal of ultra-slender female figures in the mass media of Western culture. This contributes to increasing body image concerns in women and girls (Cheng & Mallinckrodt, 2009). Images of women in the media today are thinner than past media images as well as thinner than women in the actual population. Thinness is consistently emphasized and rewarded for women in magazines, movies and television programs. Thin characters are also overrepresented while overweight characters are underrepresented (Grabe, Ward & Hyde, 2008). Consequently, the media images targeted at young girls contain extremely thin models that portray an ideal that is practically unattainable (Grabe et al., 2008). Women view this unattainable ideal as expected and consider it the norm. The thin ideal is believed to be central to attractiveness; however, with the advancement in technology, the models seen in the media have gone through modern airbrushing and camera-angle techniques so
much that they are virtually unrecognizable (Botta, 1999). Research has suggested that just a brief exposure to media images of the thin ideal can have negative consequences on the body image of women (Hargreaves & Tiggemann, 2009).

Women are constantly put under pressure to meet the beauty ideals presented in the media (Grabe et al., 2008). Internalization of these cultural ideals of thinness and attractiveness in the media leads to vulnerability to the negative effects on their own body image (Grabe et al., 2008). Body image dissatisfaction due to thin-ideal internalization can be defined as “the extent to which individuals invest in societal ideals of size and appearance to the point where they become rigid, guiding principles and perceived pressure to be thin” (Wilksh & Wade, 2010). In a study conducted by Cheng and colleagues, internalization of the media ideals of beauty was associated with Body Image Dissatisfaction (Cheng & Mallinckrodt, 2009). Other research has consistently shown that exposure to media images is related to greater levels of body dissatisfaction and can predict eating disturbances (Myers & Crowther, 2009). It has been shown that women who view thin-ideal images in a lab setting report lower body satisfaction than women who view neutral images (Grabe et al., 2008). In order to meet the thin ideal, many women develop severe and rigid dietary behaviors that can lead to the development of eating disorders. Body dissatisfaction is very prevalent among women in Western society with over 80% of female college students reporting body dissatisfaction and 76.8% of adolescent girls report wanting to be thinner (Myers & Crowther, 2009). Longitudinal studies have shown that attempting to resemble people from the media predicted binge eating and purging in girls over a 7-year follow-up (Wilksh & Wade, 2010).
It was previously thought that men did not suffer from body dissatisfaction as women did, or that if men experienced body dissatisfaction, it was not as damaging (Myers et al., 2009). However, it has been recently shown that men do experience body dissatisfaction and feel pressure to be more muscular (Hobza & Rochlen, 2009). Media images of men portray a more muscular and lean ideal than past male images and present an ideal that is unrepresentative of the average male population. Magazines have increasingly depicted the male body in a state of “objectified undress”, with the focus on exposed muscularity (Hobza & Rochlen, 2009). Men have reported feeling dissatisfied with their muscle size and tone and strive to be more muscular (Hargreaves et al., 2009). A study conducted by Hargreaves and colleague in 2009 found that men who engaged in upward comparisons reported greater decrease in feeling strong, in weight satisfaction, and in muscle satisfaction (Hargreaves & Tiggemann, 2009). Many men may practice unsafe behaviors such as excessive weight lifting or use of anabolic steroids in order to achieve the muscular ideal (Myers et al., 2009). A recent study suggests that the increasing rate of anabolic steroid use in young males is approaching the rate of anorexia and bulimia found in women (Hobza & Rochlen, 2009). A study done by Hobza and Rochlen in 2009 found that men who were exposed to attractive male images reported significantly lower body esteem than men exposed to either neutral images or to advertisements featuring wealthy men. Other research has found that exposure to photographs of the muscular media images lead to negative impacts on the body satisfaction and muscularity satisfaction of men (Hargreaves & Tiggemann, 2009).

While men strive for the thin muscular body ideal, women desire a slender and thin frame. Regardless of these differences, social comparison to media images is related
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to thin ideal internalization, body dissatisfaction, and disordered eating for both males and females (Myers & Crowther, 2009). There is believed to be a stronger relationship between social comparison and body dissatisfaction for women than men (Myers & Crowther, 2009). Research has also found a stronger relationship between magazines and eating disordered behaviors than with television and eating disordered behaviors (Botta, 1999). This study aims to replicate such findings using university men and women. This study will compare the body satisfaction of university men and women after exposure to either thin idealized or neutral media images found in magazines, local newspapers and catalogues. It is hypothesized that exposure to thin ideal media images will lead to lower body satisfaction than exposure to neutral media images in both men and women. It is also thought that exposure to high thin idealized images will have less effect on body satisfaction on men than on women.

Method

Participants

Participants were 40 students, 20 male and 20 female, from the University of Western Ontario with emphasis on students from Huron University College, a small liberal arts college affiliated with the University of Western Ontario. Both Huron University College and the University of Western Ontario reside in London, Ontario. The age and socioeconomic statuses of participants were unknown. Participants were individually chosen by the experimenter, a senior level student at Huron University College, by the process of convenience. Each participant gave his or her consent to partake in the study.
Materials

Each participant was given an information page explaining the nature of the study and the various tasks that would take place. Next, participants were given a consent form, which required a signature at the bottom of the page signifying voluntary involvement. The first phase of the study required participants to look at a sheet of media images. There were four conditions of this section, the thin idealized male images, thin idealized female images, neutral male images and neutral female images. The media images for female participants can be seen in Figure 1. The media images for male participants can be seen in Figure 2. The images were glued onto 9x12 inch coloured construction paper in no particular order. Next, participants were given a two page booklet that measured body satisfaction. The two surveys consisted of the Body Areas Satisfaction and Appearance Evaluation subscales of the Multidimensional Body-Self Relations Questionnaire. These surveys can be seen in Appendix A and B respectively. After completion the booklet, participants were given a written debriefing form which provides participants with any supplemental information about the nature of the research.

There is no measurement of the reliability and validity of the media images used in this study due to the subjectivity of the researcher. Efforts were made by the researcher to choose images that obviously reflected the thin ideals of society or images that reflected the average population. However, it is impossible to analyze the true effectiveness of the images. The Body Areas Satisfaction Scale and the Appearance Evaluation scale were measured on a five point scale from "very dissatisfied" to "very
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Figure 1. A) Thin Idealized Female Images. B) Neutral Female Images.
Figure 2. A) Thin Idealized Male Images. B) Neutral Male Images
satisfied", with high scores indicating high satisfaction and low scores indicating low satisfaction. The Body Areas Satisfaction scale contained nine items and the Appearance Evaluation scale contained seven items with items 6 and 7 being reversed score. The Multidimensional Self-Relations Questionnaire, created by Thomas Cash, is a 69 item questionnaire with 10 subscales. Internal consistency for the subscales of the MBSRQ ranged from .67 to .85 for males and .71 to .86 for females (Cash, 2000).

Procedure

The experimenter, a senior level psychology student, organized and printed out the booklets used in the study. Participants were recruited by the experimenter at convenience at various locations around campus and asked to participate in a study. Participants were given the information form and letter of consent form. Upon completion of consent form, male and female participants were randomly subdivided into either condition one or condition two. The experimenter randomly organized the booklets so that each participant had equal chance of selecting condition one or two. Ten males and ten females were placed in condition one. Ten males and ten females were placed in condition two. Condition one consisted of exposure to images that represent the thin ideal. Condition two consisted of exposure to neutral images that represent the average population. Participants were first given the sheet of media images and told they had five seconds to look at the images. After five seconds, the sheet was handed back to the experimenter and participants were given a two page booklet containing the two survey. Participants were told that they had as much time to complete the booklet but that it shouldn’t take more than five minutes. Participants then handed back the completed booklet to the experimenter who then placed them into a folder separately from the
consent forms. Participants were lastly given the written debriefing form and thanked for their participation. The experimenter then compiled the results of the completed surveys and executed data analysis.

Results

A 2 X 2 between subjects ANOVA was conducted with body satisfaction as the dependent variable and gender (male/ female) and media images (thin ideal/ neutral) as the independent variables. The results indicate that there was a significant main effect for gender, $F(1, 36) = 12.99, p< 0.05$, partial $\eta^2 = .27$, with males ($M= 58.95, SD= 6.45$) reporting significantly higher body satisfaction than females ($M= 51.0, SD= 7.40$). There was not a significant main effect for media images, $F(1, 36) = 0.19, p>.05$, with those in the thin ideal condition ($M= 54.50, SD= 9.14$) not reporting significantly different than the neutral condition ($M= 55.45, SD= 6.75$). There was not a significant gender by media images interaction, $F(1, 36) = 1.44, p>.05$. See Appendix C for the ANOVA summary table of the data and Figure 3 for the graph of results.

Discussion

The purpose of this study was to examine the effect of exposure to media images on body satisfaction of men and women. The results of this study suggest that men had significantly higher body satisfaction than women. No significance was found between exposure to media images and body satisfaction for both men and women. This suggests that exposure to media images had no impact on body satisfaction. There are multiple factors that could have accounted for these results.
Figure 3: Gender differences in body satisfaction with thin or neutral image exposure
An increasing number of women are dissatisfied with their bodies due to the thin ideals portrayed in the media (Grabe et al., 2008). While men are still affected by media images, they are less inclined to engage in upward social comparison with the thin idealized portrayals (Hargreaves & Tiggemann, 2009). Most women tend to engage automatically in upward social comparisons with the thin idealized women in the media (Botta, 1999). These effects can be seen in Figure 3 as men were found to have higher body satisfaction regardless media image exposure.

Body satisfaction did not change significantly in either condition. There was a slight increase in body satisfaction for women from the thin idealized condition to the neutral condition. Men showed a slight decrease in body satisfaction from the thin idealized condition to the neutral condition.

Overall, body satisfaction was not significantly altered by exposure to media images. It can then be assumed that body satisfaction requires more than one time exposure to media images in order for an effect to be measured. It may be that body satisfaction forms with experience and thus cannot be altered with one exposure. Women are frequently exposed to fashion magazines and television programming featuring the thin-ideal body type which is associated with higher levels of body dissatisfaction and eating disorders (Grabe et al., 2008).

There are numerous control issues that may have affected the outcome of this study and should be taken into consideration for future studies. The images used in this study were taken from various print media outlets such as magazines, catalogues and local newspapers. Effort was made by the experimenter to choose images reflecting the
age and cultural backgrounds of participants. There are many elements to the images presented in the media such as the facial expressions, clothing, hair, and pose of the models. These elements induce various responses by each individual (Grabe et al., 2009). Attempts were made by the experimenter to control these variables, however, there are still many control issues associated with the images used in this study. Firstly, the thin ideal images in the media are usually presented as large, close up images where the models are often cut off from the waist down. This puts emphasis on certain body parts to draw the audience in. For female images, it was found that the model was mostly cut off past the leg while the men were cut off at the waist. The “average” images were found to be in smaller print size with their models in a small scale view. The neutral images were found to vary from close up to full length, with some images containing a full view while other images were cut off. Therefore, there is a size difference in the images used in the conditions. Less effort is required to examine the images of thin ideals where attention and focus is required for the neutral images. With the short time limit, these print size differences may have lead to a discrepancy in the retention of the stimuli. An effort was made, however, to ensure that the number of images in the neutral conditions compensated for the smaller size of the images. Secondly, there was no reliability or validity associated with the images found in this study as they were chosen by the experimenter. Therefore, their ability to evoke interest in the participants in order to effect their body satisfaction cannot be examined. Thirdly, there are differences in the emotional response associated with the neutral and thin ideal images. The neutral images were found mainly in advertisements that contained models that represented the average population and often contained their names. They were wearing clothing and posed in a
casual manner. This differs greatly from images in the thin-idealized condition that represent a brand rather than a population. They are found often wearing little clothing and posing in a sexual manner. There is also the concern of facial expressions of the models. Neutral images were found to contain positive facial expressions, with most models smiling or laughing. The thin ideal images represent a more serious look, with models often looking off in different directions and not directly at the camera. All these issues can attribute to differences in arousal from the two conditions. The thin ideal images represent a perfect idea of beauty that creates a sense of desire; neutral images evoke less interest as they tend to be seen in everyday life from regular people.

In order to control for experimental bias, the booklets were organized in a random fashion before distribution. The booklets were marked with either N, for neutral, or TI, for thin ideal, at the top of page to represent the condition placement. Either an M, for male, or an F, for female, was located next to the condition mark. The experimenter was unaware of the order of the booklets before distribution. This allowed each participant an equal chance of being placed in condition one or two without the influence of experimenter bias. Once participants were placed in each condition, the experimenter was responsible for the showing of the appropriate media images.

The time allocated for viewing the stimuli was set by the experimenter at five seconds. This time was chosen to represent the norm viewing time individuals are usually exposed to these images through media outlets. Television ads are quick, showing flashes of images in a few seconds. Magazine advertisements are usually flipped over quickly, thus five seconds was chosen as an average time individuals were likely to engage in a media image. The time participants need to internalize and connect with the images may
vary. The results do not account for the individual differences of internalization. Increasing the time of exposure to the stimuli may lead to better retention and internalization of the images for some people. A study conducted by Stice and Shaw suggests that one time exposure to media images is not sufficient enough to accurately measure women's endorsement of the thin ideal through media images. They suggest changing to longitudinal studies in order to understand the long term effects of media exposure (Botta, 1999).

It is necessary to take into account the expanding methods of media exposure. Media images can be seen through numerous outlets such as television, radio, magazine and the internet. Relying exclusively on a visual display created from print media outlets doesn't represent the scope of media messages an individual is exposed to regularly. The exposure to media images in this study differs from the naturally occurring viewing in various ways. First, in everyday life, individuals are able to choose which images they view rather than being told what to examine. Second, there are many other forms of media exposure that individuals participate in daily. Thirdly, it is unclear whether viewing media images in a lab setting is comparable to viewing the same images at home (Hargreaves & Tiggeman, 2009). As a result of these differences, some caution should be taken when analyzing the results of this study. Therefore, it is necessary to conduct future studies using different methods of media exposure in order to further understand the scope of media image influence.

This study does not take into account internal factors that are influenced by media exposure. Body image concerns are multidimensional and include thoughts, feelings, and behavioral responses related to one's body (Grabe et al., 2008). Men do not usually
engage in upward comparisons to media-portrayed ideals as women do (Hargreaves & Tiggemann, 2009). It is unknown whether this occurs because they regard their own appearances more highly, or downgrade the appearances of the media-portrayed ideal (Hargreaves & Tiggeman, 2009). Thus, the influence of media images on body satisfaction seems to be more related to how these images are processed than how often individuals view these images. The Multidimensional Body Self Relations Questionnaire is a validated self report method and the most widely used measure of body image (Cash, 2000). However, due to the complexity of body image, it seems necessary to include a variety of measures to assess body image and related constructs, such as journal/diary logs or observational assessment, to provide a more precise understanding (Grabe et al., 2008). Further research should also attempt to understand the processes involved with social comparisons and media internalization in order to develop ways to prevent the negative consequences associated with it.

Future research should focus on using younger participants as age is a critical factor in the development of body image dissatisfaction. Research suggests that body dissatisfaction is becoming problematic for children at increasingly younger ages (Myers & Crowther, 2009). Research finds about one-third of a teen's day is consuming media messages (Gregerson, 2010). Adolescents are more susceptible to external influences and are more likely to be negatively affected by the thin ideal images presented in the media than university students (Botta, 1999). Therefore, using younger participants may give insight to the effects of media internalization on young children and adolescents where susceptibility will be the greatest. Also, further research should be conducted on the developmental effects of body satisfaction. In the critical developing period of
adolescences, young teens spend most of their time with their peers which often influences social comparison to the media and consequently body dissatisfaction (Myers & Crowther, 2001).

There are issues to be revised for continuing this study such as sample size and diversity. This sample represents a limited population and is unrepresentative of the general population given its small size. There is also a lack of diversity within the sample. By selecting participants by convenience, it can be assumed that many participants were friends of the experimenter therefore represent a biased sample of individuals with similar interests and personalities. Social influences may also have affected the results of this study. By using a biased sample, participants may have completed the booklets in accordance to the hypothesis of the study. It is also possible that participants may have been embarrassed to answer the questions honestly thereby creating results that are not truly representative of the sample. It is also possible that participants may have rushed to complete the booklets this study was conducted during the exam period. As well, the majority of the participants are students that are registered at UWO and therefore represent similar economic status which is higher than the general population. These factors can be avoided by increasing the size of sample in order to reach a broader population as well as enforcing the random selection of participants.

Further research should be executed to examine the effect of media images on different ethnic and cultural groups. The importance of beauty and appearance differs between cultures and thus it would be interesting to see if this effect emerges among different ethnicities (Botta, 1999). A study conducted by Nassar in 1988 suggested that the rate of eating disorders were lower in non-western cultures where thinness is not as
valued (Botta, 1999). It would be of interest to understand what effects cultural values have on subsequent body satisfaction.

There was no control over the location and time of day participants completed the study. Locations can influence an individual's mood or emotional state. However, locations were not monitored while the study was completed so it is unclear what moods or emotional states participants were in. Due to the lack of control over the timing regulations in study, attention levels, concentration and degree of fatigue between participants can't be compared and its effect on the results cannot be analyzed. This can be controlled by implementing regulations for the timing and locations of the study to create consistency between the participants.

Considering the fact that media and technology are constantly expanding and infiltrating our day to day lives, it's necessary to understand their effects on individuals. In order to prevent negative consequence from media exposure, the importance of attractiveness in congruence with thin ideals needs to decrease. However, with the expanding of the mass media, it is unrealistic to expect that the intense pressure put on individuals to meet the thin ideal can be eliminated. Thus, it seems essential to develop programs in order to educate adolescents on prevention of the negative consequences associated with the media. However, there have been advances with the new policies adopted in Spain and Italy, as well as by the Council of Fashion Designers of America, which excludes extremely thin women from modeling. This will not only help the models themselves but the millions of girls and women who view these images around the world (Grabe et al., 2008).
References


Appendix A

*Body Areas Satisfaction Scale of the Multidimensional Body-Self Relations Questionnaire*

Items are scored from 1 to 5, with a higher number indicating greater agreement with the statement.

Use the following scale to indicate how satisfied you are with each of the following areas of your body:

1 = very dissatisfied  
2 = mostly dissatisfied  
3 = neither satisfied nor dissatisfied  
4 = mostly satisfied  
5 = very satisfied

1. Face (facial features, complexion) 1 2 3 4 5
2. Hair (color, thickness, texture) 1 2 3 4 5
3. Lower torso (buttocks, hips, thighs, legs) 1 2 3 4 5
4. Mid torso (waist, stomach) 1 2 3 4 5
5. Upper torso (chest, shoulders, arms) 1 2 3 4 5
6. Muscle tone 1 2 3 4 5
7. Weight 1 2 3 4 5
8. Height 1 2 3 4 5
9. Overall appearance 1 2 3 4 5
Appendix B

*Appearance Evaluation scale of the Multidimensional Body-Self Relations Questionnaire*

Items are scored from 1 to 5, with a higher number indicating greater agreement with the statement. Questions 6 and 7 are reverse scored. All items are then summed for the subscale score.

1=very dissatisfied
2=mostly dissatisfied
3=neither satisfied nor dissatisfied
4=mostly satisfied
5=very satisfied

1. My body is sexually appealing. 1 2 3 4 5
2. I like my looks just the way they are. 1 2 3 4 5
3. Most people would consider me good looking. 1 2 3 4 5
4. I like the way I look without my clothes. 1 2 3 4 5
5. I like the way my clothes fit me. 1 2 3 4 5
6. I dislike my physique. 1 2 3 4 5
7. I am physically unattractive 1 2 3 4 5
## Appendix C

ANOVA Summary Table

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