2013

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MEDIA AND BODY WEIGHT SATISFACTION

An examination of the impact of the media on body weight satisfaction

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The present experiment examined the effect of media cues and levels of media influence on body weight satisfaction. Participants filled out the Sociocultural Attitudes towards Appearances Scale-3 (SATAQ-3), later used to categorize participants into either a high or low general media influence condition and into either a high or low societal pressure condition. Participants were then asked to read either an article related to dieting or a neutral article, depending on their condition. Finally, participants answered three weight-related questions. Results indicated no main effect of article condition or of general media influence, but there was a significant main effect of societal pressure on body weight satisfaction. No interaction effects were present. Methodological issues and suggestions for further research will be examined in the discussion.

The relationship between eating, body image, and weight has become an important area of research in the last few decades because of the increase in obesity and in eating disorders which has been observed among youth in Western society. Even among individuals who are not obese and who do not have an eating disorder, however, dissatisfaction with one's body weight may be present. For instance, in a yearly introductory psychology classroom experiment, Cole (2013) invites his students to fill out a questionnaire asking for their current weight, their ideal weight, and their satisfaction ratings on a 5-point Likert scale. He has almost consistently found that females had an average ideal weight which was lower than the average current weight for their group and that males had an average ideal weight which was higher than the average current weight for their group. As well, females usually scored lower than males on their satisfaction ratings, suggesting that they were more dissatisfied with their body weights than were males.
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In recent years, a lot of the responsibility for this body weight dissatisfaction has been placed on the role that media play in our society, and many recent studies seek to explore this relationship. Morry and Staska (2001), for instance, investigated the relationship between magazine exposure, internalization of sociocultural beauty standards (as measured by the Sociocultural Attitudes towards Appearance Scale (SATAQ)), and body dissatisfaction. Similar to Cole’s findings, females were more dissatisfied with their bodies than males. They also indicated that the internalization of sociocultural beauty standards was a predictor of body dissatisfaction in females. In another related study, Lokken, Worthy, and Trautmann (2004) examined the relationship between quantity of magazine exposure, magazine preferences, eating-disordered symptoms, and internalization (as measured by the SATAQ). Results indicated that internalization was a significant predictor of eating-disordered symptoms such as body dissatisfaction and drive for thinness. A small positive correlation between internalization and a preference for beauty and fashion magazines was also found. In a recent study by Fernandez and Pritchard (2012), using a revised version of the SATAQ, the Sociocultural Attitudes towards Appearance Scale-3 (SATAQ-3), researchers found that female perceptions of societal pressures exerted by the media (a subscale of the SATAQ-3) was positively correlated with drive for thinness in females. Based upon the findings from these studies, females who are more highly influenced by the media are more susceptible to having a higher drive for thinness and lower body dissatisfaction levels.

The present study will examine the effect of magazine types on body weight satisfaction by placing participants in either an experimental condition which involves reading an article focusing on achieving an ideal body weight or a control condition which involves reading an article unrelated to ideal body weights. As well, participants
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will be categorized as either highly influenced by media or not highly influenced by media in order to examine the difference in body weight satisfaction between these two groups. Societal pressure, a subscale of levels of media influence, will also be examined in the same manner. The researcher predicts that participants who score high in general media influence and in societal pressure will be more dissatisfied with their bodies. As well, these differences are expected to be more prominent in the experimental condition than the control condition.

Method

Participants

The experiment included 30 undergraduate female students who attended a small, liberal arts college which belonged to a larger, more comprehensive university. Participants, some of which were acquaintances of the researcher, were recruited in person by the researcher herself.

Materials

Forty sets of questionnaires were constructed for the present experiment. Each set included four sheets of paper stapled together. The first two sheets consisted of the Sociocultural Attitudes towards Appearance Scale–3 (SATAQ-3), a 30-items questionnaire which examines how much individuals are influenced by the media (Thompson, van den Berg, Roehrig, Guarda & Heinberg, 2004). Questions were in the form of statements. Participants had to indicate the extent to which they agreed with each statement on a 5-point Likert scale, with 1 being “definitely disagree” and 5 being “definitely agree”. This questionnaire contained four subscales: nine statements belonged to the general internalization subscale, which measured internalization of the ideal that women should be thin and that men should be muscular; five statements
belonged to the athletic internalization subscale, which measured the internalization of the ideal of an athletic body; seven statements belonged to the societal pressures subscale, which measured the perceived pressure exerted by the media to meet the expectations of these ideal body types; and the last subscale, media information, which measured the use of information from the media on how to attain these ideal body types, included nine statements. When compared to measures of body image and eating disturbance, the SATAQ-3 has demonstrated good convergent validity. As well, higher scores on the SATAQ-3 were found within eating-disturbed and eating-disordered populations than a control population.

The third sheet from the set consisted of an article excerpt. Two different articles were chosen, one for the experimental condition (see Appendix A) and one for the control condition (see Appendix B). Out of the total 40 sets of questionnaires, 20 had an article corresponding with the experimental condition and 20 had an article corresponding with the control condition. The selection of articles was based on the categories developed by Peláez-Fernández and Extremera (2001), who examined the impact of different media message primers on food intake and on goals related to food and dieting. In their experiment, they had three different conditions: the food-cue condition was presented with gourmet magazines, the dieting condition was presented with fashion or dieting magazines, and the control condition was presented with furniture or geographic magazines. Therefore, for the present experiment, an excerpt from a dieting article was used for the experimental condition and an excerpt from a geographic article was used for the control condition. Each article was also accompanied with a large color picture which was to be found in the original article. While both pictures involved people, the picture for the experimental condition focused upon one thin female and the picture for the control condition focused on many individuals who were both
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male and female and were of varied body sizes. The subjects of both pictures were predominantly Caucasian.

The last sheet in the set included three weight-related questions (see Appendix C) which were based on an introductory psychology class experiment for which the results are compiled on a yearly basis. Participants were asked for their current weight, their ideal weight, and their body weight satisfaction on a 5-point Likert scale, with 1 being "very dissatisfied" and 5 being "very satisfied".

Procedure

Prior to the start of data collection, the sets of questionnaires were manually assorted in a manner which approached random selection. Since the article excerpt was located on the third sheet of each set of questionnaires, the researcher did not know to which condition each participant belonged.

Data collection took place at various times of the day within a ten-day period. Participants were approached and asked if they would be willing to participate in a study examining the relationship between media influences and body weight satisfaction. They were told that the study would take approximately five to ten minutes and that it involved filling out a questionnaire, reading a short article, and answering a few weight-related questions. Participants were also assured that all information would be kept confidential. If participants agreed to participate, they were asked to read the letter of information and to sign the consent form. The set of questionnaires was then provided to the participant to complete.

Once the collection of data was complete, ratings on the SATAQ-3, ratings on the societal pressures subscales of the SATAQ-3, current weights, and body weight satisfaction ratings were compiled. Participant results on the SATAQ-3 scale and the
societal pressures subscales were generated by calculating the average rating for each category. Two groups were constructed for the SATAQ-3 scale, low media influence (average rating < 3.3) and high media influence (average rating ≥ 3.3). As well, two groups were constructed for the societal pressures subscale, low pressure (average rating < 3.71) and high pressure (average rating ≥ 3.71). The researcher then proceeded to conduct two separate 2x2 analyses of covariance (ANCOVA) with current weight as the covariate and body weight satisfaction ratings as the dependent variable. The first analysis examined the effect of article condition (control and experimental) and results from the SATAQ-3 (low media influence and high media influence) on body weight satisfaction ratings. The second analysis examined the effect of article condition (control and experimental) and results from the societal pressures subscale (low pressure and high pressure) on body weight satisfaction ratings.

Results

Figure 1 demonstrates that participants in the control group who scored high on total media influence ($M = 3.07, SD = 0.96$) and who scored low on total media influence ($M = 3.2, SD = 1.15$) were more satisfied with their body weight than those in the experimental group who scored high on total media influence ($M = 2.78, SD = 0.97$) and who scored low on total media influence ($M = 3, SD = 1$). This difference was not large enough, however, since the main effect of article condition was not found to be significant, $F (1, 25) = 1.57, p > .05$. For both the control and experimental conditions, there was also a very small difference between the high media influence conditions and the low media influence condition, with participants in the high media influence conditions indicating more body weight dissatisfaction than their low media influence counterparts. The main effect of media influence levels, however, was not significant, $F (1, 25) = 0.91, p > .05$. As well, the interaction effect between both article condition and
Figure 1. The average body weight satisfaction ratings for the general media influence scale (i.e., the total score on the SATAQ-3). Low pressure participants are represented in the two columns on the left and high pressure participants are represented in the two columns on the right. The control condition is represented by the light grey columns and the experimental condition is represented by the dark grey columns.
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media influence levels \( (F (1, 25) = 1.37, p > .05) \) was not significant. See Appendix D (Table 1) for an ANCOVA summary table for this first analysis.

*Figure 2* shows that participants in the control group who scored high on societal pressure \( (M = 2.81, SD = 0.91) \) and who scored low on societal pressure \( (M = 3.5, SD = 1.09) \) were more satisfied with their body weight than those in the experimental group who scored high on societal pressure \( (M = 2.56, SD = 0.88) \) and who scored low on societal pressure \( (M = 3.29, SD = .95) \). Yet the main effect of article condition was not significant, \( F (1, 25) = 1.88, p > .05 \). As we can see from *Figure 2*, however, participants from the low societal pressure condition rated themselves as being more satisfied with their body weight than the high societal pressure condition. This difference, and therefore the main effect of societal pressure levels, was found to be significant, \( F (1, 25) = 5.44, p < .05 \). See Appendix D (Table 2) for an ANCOVA summary table for this second analysis.

**Discussion**

The present experiment examined whether female participants in an experimental condition would show more body weight dissatisfaction than female participants in a control condition. It was expected that females within either condition with higher levels of general media influence and with higher levels of societal pressures would rate themselves as having more body weight dissatisfaction than those who scored lower on both of these measures. Results indicated that there were no main effects or interaction effect between general media influence and article condition on body weight satisfaction ratings. When societal pressure was examined instead of general media influence, there was also no main effect of article condition and no interaction effect between article condition and societal pressure in this analysis.
Figure 2. The average body weight satisfaction ratings for the societal pressures subscale. Low pressure participants are represented in the two columns on the left and high pressure participants are represented in the two columns on the right. The control condition is represented by the light grey columns and the experimental condition is represented by the dark grey columns.
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However, a main effect of societal pressure on body weight satisfaction ratings was present.

The finding that societal pressure has a significant effect on body weight satisfaction is similar to Fernandez and Pritchard's findings (2012), which indicated that female perceptions of societal pressures was positively correlated with drive for thinness in females. It could be argued that body weight dissatisfaction and drive for thinness are closely related concepts since each contains within it an attitude towards changing one's body towards an ideal body. This comparison could provide evidence for convergent construct validity of the societal pressure subscale within the SATAQ-3 since the results from this study are similar to those of Fernandez and Prichard.

The insignificant results from the analysis examining the effect of general media influence on body weight satisfaction ratings is inconsistent with the findings of Morry and Staska as well as Lokken, Worthy, and Trautmann. Both these researchers found that scores on the SATAQ was a significant predictor of body dissatisfaction. However, it must be noted that these researchers used the SATAQ rather than the SATAQ-3, the revised version of the SATAQ. While the original SATAQ scale contained two subscales, internalization and awareness, the revised SATAQ-3 contained four subscales (Thompson et al.). While two of these subscales corresponded with the internalization subscale of the original version, the other two did not. It could therefore be argued that comparisons between the present study and the other two studies cannot be clearly made without further analysis. Perhaps the SATAQ-3 measures different facets of media influence than the SATAQ, and this may be responsible for the lack of evidence supporting the influence of media in the present study.
Although the latter argument is possible, the insignificant results are more likely due to methodological issues within the experiment. First, the sample size used for the present study was relatively small. Since the current results appear to be moving in the direction hypothesized, a larger sample may have revealed significant findings. While the sample of undergraduate university students used in this experiment is specific in nature, it is a sample which is often used for studies concerning media influences and body image (Morry & Staska; Lokken, Worthy, and Trautmann; Fernandez & Pritchard). Nevertheless, it is still important to conduct similar studies among different populations such as young girls or middle-aged women. As well, while this experiment only focused on female body weight satisfaction, it is important to explore the same issues among male populations. Although the male ideal weight is often greater than this group's current weight (Cole), indicating a desire for a muscular body rather than a thin one, this ideal weight is also influenced by the media. Media's influence on males, as well as the differences between males and females, should therefore continue to be explored.

The present experiment included two measures which were collected through self-report, the SATAQ-3 and the three weight-related questions. Self-report measures can create methodological issues if participants are not accurate or honest. While this issue may have affected participant answers in the present experiment, participants were reassured that all materials would be kept confidential in order to allow them to feel more open to answering honestly and accurately. It is also important to examine the reliability and validity of such measures. While SATAQ-3 has not been explicitly tested for reliability, it has been used extensively with studies exploring media influences and, on this basis, could be said to have at least some reliability. The SATAQ-3 has nevertheless been explicitly tested for its validity and was found to have excellent convergent validity (Thompson et al.). As well, the three weight-related questions were
the same as those used in Cole's yearly classroom experiment, which has provided very similar results each year, therefore providing some evidence for good reliability. The validity of these weight-related questions, however, has not been explicitly tested.

The lack of significant results for the main effect for article condition could be due to the choice of article and picture for each condition. While the researcher attempted to find appropriate articles and article pictures, these choices were based on a single subjective selection, and so the article and picture in the experimental condition most likely did not have influenced participants' body weight satisfaction in the way that the researcher had hoped. More careful consideration should therefore be placed on article and picture choice to ensure that the media cues are appropriate for each condition. The researcher based the type of magazine from which to pull the articles based on Peláex-Fernández and Extremera, but these researchers provided participants with many magazines rather than a single article. The approach taken by these researchers may have therefore been more effective because the media cues would have been more salient than those in the present experiment. Instead of providing participants with a single article, providing them with a magazine may present significant results.

The present experiment examined the influence of media cues and media influence levels on body weight satisfaction in females. Exploring the influence that media has upon our self-concept, especially in relation to body image issues such as body weight satisfaction, is an important area of research because media cues and messages are present in our everyday lives. While it is difficult to construct experiments which reflect the nature of media in our lives because the media landscape is very complex and is always changing, researchers should continue to attempt to examine these issues. Controlled laboratory experiments should be conducted to determine the specific factors in media which influence human behaviour.
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References


APPENDIX A

SAMPLE ARTICLE (EXPERIMENTAL CONDITION)
7 Easy-Peasy Portion-Control Tricks

In a world where pasta comes in a vat you can practically swim in and restaurant entrees could fill a trough, how are you supposed to not overeat, let alone lose weight? And what does a four-ounce piece of meat look like anyway? Read on for the easiest tricks for portion control ever—no measuring cups required.

**Portion-Control Trick for Weight Loss: Think of Your Plate in Fractions**

You can fill your plate—just not how you might think! "My all-time favorite way to think about portions is to use the plate method," says Julie Kaye, M.P.H., R.D., C.D.N., a registered dietitian in New York City. Fill half a dinner plate with low-starch vegetables like broccoli, a quarter of the plate with a high-fiber starch like whole-wheat bread (yes, carbs!) and the other quarter with a lean protein like grilled chicken breast. "It's a tried-and-true method that can be done anywhere," Kaye says. "No excuses."

**Portion-Control Trick for Weight Loss: Add the Extras Before the Food**

Coffee flavorings and creamers, salad dressings and spreadable condiments are all portion-control offenders—it's easy to overdo it without meaning to. So instead of adding creamer after you've already poured a cup of coffee, measure it out and put it in first, Palinski says.

(source: http://www.glamour.com/health-fitness/2012/03/7-easy-peasy-portion-control-tricks#slide=7)
APPENDIX B

SAMPLE ARTICLE (CONTROL CONDITION)
Canada's oldest established city, Quebec City, located on the St. Lawrence River, celebrated its 400th birthday in 2008. The Old Town is pleasantly walkable, with lots of open spaces. Stroll Place Royale, where Champlain and his men first settled. Tour the Parliament Building, home to the Quebec Parliament. Sitting on a bluff overlooking the river, Le Château Frontenac looks like a fairytale castle and is actually a Fairmont hotel (and supposedly the world’s most photographed). The hotel even has a Canine Ambassador, a Labrador/Bernese mountain dog mix named Santol, who hangs out in the lobby greeting guests.

**Where to Play**

Bike around the Plains of Abraham, Quebec City’s answer to Manhattan’s Central Park. Covering nearly 450 acres (180 hectares), the park is a great place to picnic and explore. In the winter, you can cross-country ski and snowshoe here. At the Musée de la Civilisation, hands-on exhibits and collections teach visitors about Quebec’s centuries-old history. The kids will especially enjoy the costume workshop. For a view of the old port, stroll along the Rue des Remparts, which are nearly 20 feet (6 meters) high.

**At Day’s End**

Cosmos Café has a kids’ menu and a funky vibe. A section of the floor is made of glass, so that you can watch the fish swimming below.

(source: http://travel.nationalgeographic.com/travel/family-trips/quebec-city-canada/)
APPENDIX C

WEIGHT-RELATED QUESTIONS
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**WEIGHT-RELATED QUESTIONS**

Please read each of the following questions and indicate your answer on the line.

What is your current weight? ______
What is your ideal weight? ______

Please read the following question and circle the number that best reflects your answer.

How satisfied are you with your current weight?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>very dissatisfied</td>
<td>dissatisfied</td>
<td>satisfied</td>
<td>very satisfied</td>
<td>somewhat satisfied</td>
</tr>
</tbody>
</table>
APPENDIX D

ANCOVA SUMMARY TABLES
Table 1. ANCOVA summary table examining the average body weight satisfaction ratings for the general media influence scale.

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<th>MS</th>
<th>F</th>
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</thead>
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<td>.82</td>
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<tr>
<td>Media Influence</td>
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<td>1</td>
<td>.48</td>
<td>.91</td>
</tr>
<tr>
<td>Condition</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Interaction</td>
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<td>.71</td>
<td>1.36</td>
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<td>Error</td>
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<td>25</td>
<td>.52</td>
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</table>

Table 2. ANCOVA summary table examining the average body weight satisfaction ratings for the societal pressures subscale.

<table>
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<th>Source</th>
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<th>df</th>
<th>MS</th>
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<td></td>
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