

BEAUTY REDEFINED: EXPLORING MEDIA LITERACY PERCEPTIONS AND BODY
IMAGE IN YOUNG WOMEN

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ABSTRACT

Investigating how a media literacy education intervention tool affects women's self-objectification, self-esteem, and body satisfaction was the first purpose of the study. Secondly, participants' perceptions of media literacy education interventions and of media imagery were explored. Objectification theory was used as a framework for understanding media imagery effects.

One hundred and eighty three participants completed the online study. Participants were mainly recruited from the undergraduate Psychology participant pool at the University of Saskatchewan. The control group (n = 99) viewed a compilation of magazine advertisements and completed measures of self-objectification (i.e., the Self-Objectification Questionnaire), self-esteem (i.e., the Rosenberg Self-Esteem Scale), body satisfaction (i.e., the Body Image States Scale), and media attitudes (i.e., the Media Attitudes Questionnaire). The intervention group (n= 84) received a media literacy education intervention tool (i.e., the *Evolution* video, by Dove), viewed magazine advertisements, and completed the same measures of self-objectification, self-esteem, body satisfaction, and media attitudes. The intervention group also completed open-ended questions about their perceptions of the intervention. Analyses included independent *t*-tests, Pearson correlations, descriptive statistics, and thematic analysis.

Results indicated no significant differences between the control and intervention conditions for self-esteem, self-objectification, body-satisfaction, and media attitudes. Although significant correlations were found, most were in the direction that did not align with the predictions. A descriptive analysis indicated that women's perceptions of themselves are negatively affected by media material. The thematic analysis demonstrated that viewing the intervention was both positively and negatively perceived. Results and limitations of the current study are discussed. Implications for practice and future research are also identified.

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CHAPTER ONE: INTRODUCTION

The media is a fundamental social agent in virtually every society, which conveys ideas, values, norms, attitudes, and behaviours that construct social reality (Lopez-Guimera, Levine, Sanchez-Carracedo, & Fauquet, 2010). An extensive amount of literature has demonstrated media exposure adversely influences multiple areas of young women's well being, such as self-esteem (e.g., Wilcox & Laird, 2000), body image anxiety (e.g., Halliwell & Dittmar, 2005), and body dissatisfaction (e.g., Tiggemann & McGill, 2004). Mass media, coupled with the resulting harmful effects of exposure, may also lead to disordered eating (Derenne & Beresin, 2006). Statistics Canada (2013) has recently found the prevalence of anorexia nervosa in Canadian women to be up to 1% and almost 3 times this rate for bulimia nervosa. Research has addressed these unfavourable outcomes by investigating interventions to prevent and reduce them. In particular, media literacy has been a promising avenue explored within the field of education (e.g., Halliwell, Easun, & Harcourt, 2010; Posavac, Posavac, & Weigel, 2001, Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005). *Media literacy* involves critically analyzing media messages as an attempt to prevent the internalization of thin ideals and reduce social comparisons to portrayed models (Levine & Piran, 2004). Media literacy training can serve as a means to develop an individual's skills to cautiously inspect media material. Furthermore, experts in media literacy assume that the media is a constructed representation of reality (which people actively process and consume), and that the meaning of media is a transaction between the perceiver, the content, and the cultural contexts (Levine & Smolak, 2006).

Statement of the Problem

Media literacy has the potential to ameliorate the media's influence; however, inconsistencies exist in the literature regarding the effects of media literacy education

interventions that target body image. Positive (e.g., Halliwell et al., 2010; Yamamiya et al., 2005), negligible (e.g., Irving & Berel, 2001), and negative (e.g., Choma, Foster, & Radford, 2007) effects of media literacy interventions on features of self-perception have all been established. Drawing from these findings, one objective of the proposed work was to examine how a media literacy education intervention affects specific aspects of women's well-being.

Objectification theory (Fredrickson & Roberts, 1997) often serves as a framework for research on media and body image (e.g., Calogero, Davis, & Thompson, 2005; Slater & Tiggemann, 2010). *Objectification theory* states that females are subject to a distinctive process of inspection, evaluation, and treatment as an object, valued mainly for their use to others (Fredrickson & Roberts, 1997). This theory specifies *self-objectification* as the process of internalization of other's evaluations, which results from the normative sexual objectification of the female body by society (Fredrickson & Roberts, 1997). To date, only one study has investigated media literacy effects through the lens of objectification theory (Choma et al., 2007). This study failed to examine effects and perceptions based on media exposure, but rather investigated the isolated effects of the intervention. Therefore, further research on media literacy education interventions and media exposure, from the perspective of objectification theory, was warranted.

Purpose

The purpose of the current study was two-fold. Firstly, how a media literacy education intervention tool affects women's self-objectification, self-esteem, and body satisfaction was investigated. This examination stemmed from inconsistent findings in the literature regarding the precise outcomes of media literacy interventions (e.g., Choma et al., 2007; Halliwell et al., 2010; Smolak et al., 1997). This objective was addressed by examining how those who viewed a media

literacy education intervention tool prior to media exposure compared (in terms of self-esteem, body satisfaction, and self-objectification) to those who did not receive the media literacy education intervention tool.

Secondly, participants' perceptions of a media literacy education intervention and of media imagery were explored (from the perspective of objectification theory). This investigation stemmed from minimal literature on the topic of media literacy and objectification theory. There is also no literature conducted on this particular topic using a western Canadian sample, which provided further support for this examination. This objective was investigated by thematically exploring participants' perceptions of the media literacy education intervention tool. Comparing how those who received and who did not receive the intervention differed in terms of their attitudes to media imagery was an added way to explore media-related perceptions.

Research Questions and Hypotheses

On the basis of the reviewed findings, the following research questions were posed:

1. How are participants' self-esteem, body satisfaction, and self-objectification affected by receiving or not receiving a media literacy education intervention?
2. What are participants' perceptions of a media literacy education intervention and of media imagery?
3. How are participants' perceptions of media imagery differentially affected by a media literacy education intervention, compared to those participants who do not receive the intervention?

The corresponding hypotheses were: (1) viewing the media literacy education intervention would result in increased self-esteem and body satisfaction. Self-objectification was included as an exploratory variable as its outcome has not been specifically tested in relation to a

media literacy education intervention, coupled with media exposure; (2) the media literacy education intervention would have a positive impact on participants' perceptions of themselves, others, and/or the media; and (3) those who are randomly assigned to view the media literacy education intervention would report increased perceptions of media imagery skepticism, compared to those who do not receive the education intervention.

Significance

In a broad sense, exposure to mass media coupled with its resulting harmful effects, is a significant area of research as these experiences are associated with disordered eating (Derenne & Beresin, 2006). The media explicitly portrays the thin ideal. The pursuit of this standard is vital to decrease, as it predicts maintenance of eating disorder symptoms (Bohon, Stice, & Spoor, 2009). Information from Statistics Canada (2013) further illustrates that body image disturbances (and in result, eating disorders) are a very prevalent and significant issue for young women in today's society, and that their occurrence may be linked to media exposure. Also, objectification theory posits that younger women (as opposed to middle aged women) are subject to early experiences of sexual objectification, due to prevalent sociocultural values and expectations (e.g., the thin ideal). These experiences, whether actual or anticipated, trigger a multitude of negative psychological and experiential effects on women. These effects also increase young women's vulnerability to several poor mental health outcomes (e.g., depression, sexual dysfunction, eating disorders) (Fredrickson & Roberts, 1997). Based on this information, in order to improve the well-being of current and future young Canadian women, interventions to reduce the negative impact of media exposure are a vital area of exploration.

The current study addresses a gap in the literature that directly examines media exposure and perceptions of media literacy education interventions through the lens of objectification

theory. The study expands the current body of literature on media literacy interventions and objectification theory by providing new information regarding the additional variable of media exposure. Comparing participants' perceptions on a measure of media imagery attitudes was an additional way to investigate how a media literacy education intervention impacts internalized perceptions.

This investigation was accomplished in a Western Canadian sample of young women, which has not been addressed prior to the current study. The exploration of regional differences may be helpful to highlight the potential differences that exist in terms of prevalent media imagery attitudes and the resulting affects of media imagery on women's body image. The differences between Canadian regions may help to better inform intervention options. For example, perhaps those in Western Canada are more susceptible to the negative effects of media imagery, and thus, require stronger forms of media literacy interventions (e.g., programs, education), compared to those in Eastern Canada. Additionally, regional differences are important to examine from the perspective of educational intervention. In Canada, there is no federal department of education and no integrated national system of education (The Council of Ministries of Education, 2015). Although there are similarities in the provincial and territorial education systems, there are also significant differences in curriculum, assessment, and accountability policies among the jurisdictions. These differences reflect the geography, history, language, culture, and corresponding specialized needs of the provincial populations served (The Council of Ministries of Education, 2015). Due to educational differences in Canada, exploring and considering interventions to help serve this specialized population (i.e., province) would be beneficial. The interventions which are found to be successful, could then be applied to the varying curricula.

Definitions

The body of work exploring objectification theory, media exposure, and media literacy uses multiple definitions to describe concepts and variables. The following are commonly referred to in the literature reviewed and in this thesis.

Thin ideal. *Thin ideal* refers to (mainly) Western cultures, which idealize a standard of thinness that is below the average women's weight. The thin ideal is related to the standard of beauty presented in the media (McCarthy, 1990).

Social comparison. In accordance with social comparison theory (Festinger, 1954), *social comparison* refers to the continual process of self-evaluation with others as a way to assess individual standing on various characteristics and traits. With respect to media content, social comparison involves the upward comparison of self with the idealized images and social and cultural standards. Social comparison can also occur as a means of self-improvement (Lopez-Guimera et al., 2010).

Objectification theory. *Objectification theory* is a theoretical framework that provides an explanation for many mental health risks, which are uniquely experienced by women. It claims that females are subject to a distinctive process of inspection, evaluation, and treatment as an object, valued mainly for their use to others (Fredrickson & Roberts, 1997).

Self-objectification. *Self-objectification* can be explained as the process of internalization of others' evaluations, which results from the normative sexual objectification of the female body by society (Fredrickson & Roberts, 1997).

Sexual objectification. *Sexual objectification* occurs when a women's body, its parts, or its sexual functions are reduced to being treated as sources of use and pleasure for others (Fredrickson & Roberts, 1997).

Media-literacy. *Media literacy* involves critically analyzing media messages as an attempt to prevent the internalization of thin ideals and reduce social comparisons with the portrayed models (Levine & Piran, 2004). The objectives of media literacy programs are vast and include, for example, promoting healthier body image and eating behaviours, fostering self-confidence, learning advocacy skills, educating about the prevalence and etiology of eating disorders, and encouraging constructive alternatives to restrictive dieting and drugs as a way to manage weight.

Thesis Organization

This thesis is organized into five chapters. Chapter One provides a synopsis of the study, its purpose, significance, and the resulting hypotheses. Chapter Two consists of a review of the literature including information on the psychological effects of media exposure, objectification theory and self-objectification, media literacy programs and tools, and relevant work on self-objectification and media literacy. Chapter Three reviews the research methodology, materials, procedures, and data analysis. Chapter Four includes a description of the results and Chapter Five offers a discussion of the results and implications for practice and future research.

CHAPTER 2: LITERATURE REVIEW

This chapter familiarizes the reader with some of the many effects of media exposure on young women's well-being. This area includes an expansive field of literature; therefore, what is included in this literature review is only a selective representation of what has been researched. In particular, media exposure and its link to the psychological process of social comparison is discussed. Objectification theory is reviewed as an applicable theoretical framework for understanding the adverse and persistent effects that women experience as a result of media imagery. In relation, literature on the various impacts of self-objectification (a process that can be heightened due to media exposure) is also discussed. Due to the connection of media subject matter and negative aspects of body image, prevention is explored and media literacy as a beneficial form of prevention is then introduced. There are various types of psychoeducational media literacy programs and tools that have been established as effective in reducing the impact of media exposure effects (e.g., negative body image, internalization of the thin ideal). Thus, literature outlining media literacy programs and tools is reviewed. In contrast to these positive, beneficial effects, research has also found negative (e.g., heightened self-objectification) and inconsistent positive effects of media literacy. These findings will be highlighted, as well. In terms of heightened self-objectification, it is important to note that this effect was found without media exposure. This piece of literature will be reviewed and discussed in terms of addressing the gap in the literature by adding media imagery and providing clarity on the effects of a media literacy education intervention tool. The chapter will end with a description of the current study.

Media Exposure Effects and Social Comparison

Adolescents and young women have long learned from various media sources what is beautiful, healthy, and preferred. The promotion of these capitalist interests has convinced

women that these portrayals are, indeed, what they should be striving for in their daily lives. The media has come to control women's minds, bodies, time, energy, and money by pressuring them to desire such unrealistic and unhealthy standards of themselves. Based on this analysis, viewing media material can also be seen as a reciprocal relationship. The media then, reflects what we want, or what we believe we want. A primary method by which the media has come to influence young women is magazines. Magazines have increased in number and availability over recent years; an estimated 33 million women spend over \$175 billion annually on magazines (Lopez-Guimera et al., 2010). Media exposure (and its resulting effects), therefore, has become a popular area of research and has demonstrated adverse outcomes on many features of women's psychological well-being such as self-esteem (e.g., Wilcox & Laird, 2000), body image anxiety (e.g., Halliwell & Dittmar, 2005), and body dissatisfaction (e.g., Tiggemann & McGill, 2004).

Additionally, social comparison has been linked to these effects as a psychological process, which aids in the translation of media content into negative results (e.g., Tiggemann, 2002; Tiggemann & McGill, 2004). The activation process of social comparison is instant and can be elicited both by salient features in a target, as well as by personal motivation that women possess for viewing such images (Tiggemann & McGill, 2004). The following literature presents evidence of the negative outcomes of media exposure, as well as their connection with the process of social comparison.

Halliwell and Dittmar (2005) investigated the effect of social comparisons with media models on women's self-esteem. They predicted that when women focus on self-evaluation (while viewing idealized media images) higher levels of body-focused anxiety would be evident, compared to when viewing advertisements without models. Halliwell and Dittmar (2005) also hypothesized that when women are prompted to direct their energy to self-improvement (when

viewing thin models) they would not report increased body-focused anxiety, in comparison to when examining advertisements without models.

To test these predictions, 98 women viewed advertisements that either did, or did not, feature idealized images. The participants were randomly assigned to conditions and told to engage in either self-evaluation or self-improvement comparisons when viewing the advertisements. A questionnaire containing measures of body-focused anxiety, internalization of sociocultural attitudes, and physical appearance comparison were administered to all women post-advertisement exposure.

In line with their prediction, results indicated that comparisons with thin models were associated with increased body-focused anxiety, when focusing on self-evaluation. Additionally, women's tendency to engage in social comparisons moderated the self-evaluative comparisons with models (i.e., women who did not normally employ social comparison strategies were affected the most). This research illustrates the negative effects that occur as a result of media exposure and social comparison processes with idealistic images.

Wilcox and Laird (2000) also examined the impact of viewing extremely slender women on participants' self-esteem. They assumed that differences exist in the impact of bodily information in generating feelings. The researchers predicted that those women whose emotions were affected by their personal cues (i.e., facial expressions) would be negatively affected by viewing slender models, while those whose feelings were not affected by their expressions would feel an improvement after examining models. Forty-one women were randomly assigned to view images of slender or normal weight models. The participants then completed self-report measures of body-esteem and self-esteem. Also, after responding to these measures, participants provided a short, qualitative description of their feelings while looking at the pictures. The

importance of personal, bodily cues in feeling processes were examined by having the women use emotional facial expressions. Wilcox and Laird (2000) then assessed whether their feelings matched their expressions.

Results of their study showed that for women who based their emotions on personal cues (e.g., facial expressions), viewing slender models produced lower self-esteem and satisfaction with their weight, as predicted by their hypothesis. For those participants who were unresponsive to personal cues, looking at slender models increased self-esteem and weight satisfaction. The researchers discuss that lower self-esteem and weight satisfaction were due to social comparison, while increases in these traits was due to identification.

Similarly, Tiggemann and McGill (2004) investigated how women, in response to thin-idealized female images, use social comparison practices. They hypothesized that both thin idealized images and social comparison tendencies would result in higher levels of comparison processing, negative mood, and body dissatisfaction. One hundred and twenty-six women were randomly assigned to view magazine advertisements portraying full body, body part, or product images. Also, the researchers manipulated the type of instruction given to women in each of the three advertisement groups; the participants were told to focus on appearance or social comparison when viewing the images. Tiggemann and McGill (2004) measured participants' mood and body dissatisfaction prior and subsequent to the advertisement viewing and assessed weight anxiety and the amount of appearance comparison only after the viewing. These measures were assembled in a questionnaire, which misleadingly described the study as examining the "effectiveness of advertising."

As predicted, results of their study indicated that full body or body part media material was related to heightened negative mood and body dissatisfaction. However, the amount of

social comparison processing was affected by image type as well as instructional set.

Additionally, Tiggemann and McGill (2004) found that the effects of image type on mood and body dissatisfaction were mediated by the amount of social comparison processes in which the participants engaged. The researchers deduce that social comparison processes are a vital contributor to the negative effects of observing media images.

Together, these studies highlight a small amount of what has been found in the literature on media effects and illustrates that social comparison, in particular, is a mechanism by which exposure stimulates these damaging outcomes. Although the reviewed studies were informative to learn about the variables that are negatively affected by media exposure and the social comparison process, the sum of these studies also left the researcher with further questions. For example, is social comparison a stable individual factor or a diverse factor, affected by mood, situation, and environmental cues, which change over time? The researcher was also left wondering if the effects of social comparison are lasting, or if they only affect the women when directly looking at the ads, and perhaps for a short time after. Culture, and how this affects the social comparison process, was also not addressed in the reviewed literature. A wider array of variables that affect the degree of social comparison (e.g., in addition to image type and instructional set) could have also provided beneficial information about this phenomenon.

This section of research demonstrates that messages of the thin ideal, beauty, and physical appearance are prevailing in the mass media. Overall, women's psychological well-being may be compromised due to media exposure and the social comparison process. The high concentration of an idealized standard of beauty and the likelihood of compromised well-being, as a result of these infiltrated media images, reinforces the need to advocate and implement effective solutions to alleviate these adverse effects.

Objectification Theory

Objectification theory, developed by Fredrickson and Roberts (1997), often serves as a theoretical framework for examining media exposure and body image consequences. It provides an explanation for many mental health risks, which are uniquely experienced by women.

Objectification theory claims that females are subject to a distinctive process of inspection, evaluation, and treatment as an object, valued mainly for their use to others. The theory focuses on the way in which society's objectification of women's bodies may increase their vulnerabilities to a wide range of psychological issues, including eating disorders. According to this view, girls and women absorb the media culture of beauty, internalize this unrealistic perspective, and adopt an observer's view of themselves.

Objectification theory specifies that *sexual objectification* occurs when a women's body, its parts, or its sexual functions are reduced to being treated as sources of use and pleasure for others. The authors comment that media transmits sexualized images of the female body to the degree that exposure to these images is nearly inescapable. This sociocultural perspective on the self can activate habitual body monitoring, which can then increase body shame and anxiety and decrease awareness of internal bodily states (Fredrickson & Roberts, 1997).

Based on this analysis, objectification theory specifies that being viewed by others in multiple, objectifying ways (e.g., sexually objectified) can lead women to internalize an outsider's perspective on the self, a term coined as *self-objectification* (Fredrickson & Roberts, 1997). The process of self-objectification can, therefore, result in women personally adopting this view and treating themselves as evaluative objects. Since we live in a social culture that consistently objectifies the female body, there is always the possibility for women's thoughts and actions to be interrupted by images of how their bodies appear, and for these thoughts to become

internalized within their own self-perception (Fredrickson & Roberts, 1997). Self-objectification can negatively impact women's quality of life, as they may come to use it as a strategy to determine how others will treat them.

Furthermore, when a woman is faced with objectification she can attempt to meet the ideals imposed on her, or remove herself from the system of objectification (e.g., resistance, as represented in the form of an eating disorder). However, either choice requires her to do so with her own body (Fredrickson & Roberts, 1997). Regardless of the strategy used, Fredrickson and Roberts (1997) speculate that the shape of the female body is intricately linked to our culture's seemingly normalized practices of sexually objectifying the body.

Impacts of self-objectification. Fredrickson and Roberts (1997) perceive self-objectification to be an emotional trait as well as a personality trait; thus, the experience of it is seen to be subjective across women. Trait self-objectification is stable over time and refers to the internalization of a third-person perspective. However, state self-objectification varies and increases when a woman is acutely aware of an observer's perspective of her body (Fredrickson & Roberts, 1997). Based on this information, the researchers have suggested the possibility of both long-term and short-term situation-specific consequences of self-objectification. They discuss these consequences in terms of a woman's experience being variable, proximal, and related to context. Specifically, Fredrickson and Roberts (1997) propose consequences in the broad areas of shame, anxiety, peak motivational states, and awareness of internal bodily states. Research has come to address and further identify a number of these prospects. The following research reviews particular impacts of self-objectification on a number of psychological outcomes.

Harper and Tiggemann (2007) used an experimental design to examine the consequences

of media stimuli and self-objectification. Their first hypothesis was that those who view images with a thin-idealized woman (with or without a man) would demonstrate higher state self-objectification, appearance anxiety, negative mood, and body dissatisfaction than participants who view product control images. Harper and Tiggemann (2007) also predicted that viewing thin-idealized images of women and men would produce higher levels of state self-objectification, appearance anxiety, negative mood, and body dissatisfaction than images containing thin-idealized women only.

Ninety Australian undergraduate women were randomly assigned to view magazine advertisements containing a thin woman, a thin woman with an attractive man, or advertisements containing no people. The advertisements were collected from 20 popular Australian women's fashion magazines. Participants completed measures of consumer habits, negative mood, body dissatisfaction, self-objectification, and appearance anxiety. Lastly, a recall test was administered and information about height and weight were collected.

Results of Harper and Tiggemann's (2007) analysis demonstrated that viewing the thin-idealized images was related to greater self-objectification, weight-related appearance anxiety, negative mood, and body dissatisfaction. Therefore, these results confirmed their first hypothesis. However, in contrast to their second prediction, they found that the presence of a male with an idealized female did not seem to affect women's emotions and behavior more negatively, compared to images featuring a thin-idealized woman only. Harper and Tiggemann (2007) discuss that exposure to any type of image that includes a thin-idealized woman can provide a vicarious experience of objectification, which can trigger self-objectification. Further, the presence of a male in this type of imagery did not seem to affect women's responses.

An additional aspect of self-objectification that has been proposed is its relation to

disordered eating and depressive symptoms. In particular, Muehlenkamp and Saris-Baglama (2002) tested a conceptual structural equation model of these relationships. Also, the researchers sought to confirm Fredrickson and Roberts' (1997) assumption that self-objectification contributes to depressive symptoms, as this relationship had not previously been tested. Lack of internal awareness was included as an additional, potential mediating variable. Three hundred and eighty-four undergraduate women took part in the study and were told that it would examine whether the way women look at and feel about their bodies affects other feelings and behaviours. Participants then completed self-report measures of self-objectification, disordered eating, depressive symptoms, and internal awareness.

Results of their structural equation modeling suggested that, as predicted, self-objectification has a direct relationship to restrictive eating, bulimic symptoms, and depressive symptoms (Muehlenkamp & Saris-Baglama, 2002). Additionally, the role of internal awareness was significant for depressive symptomology but not for the other variables. Depressive symptoms did mediate the association between self-objectification and bulimic symptoms. Overall, these results provide support for the role of self-objectification (and media material) in the development of disordered eating.

As the previous studies have illustrated, self-objectification can be magnified in various situations (e.g., when viewing media material, when depressive symptoms are present). However, particular groups of women have also been found to report higher levels of self-objectification. One group that has been found to be particularly susceptible to this consequence is female ballet dancers. Dancers' bodies are closely monitored and scrutinized by others and by themselves, and furthermore, dance portrays an extreme pressure to be thin (Tiggemann & Slater, 2001). As such, these researchers aimed to test the proposed model of objectification

theory as it applies to disordered eating and former dancers. Tiggemann and Slater (2001) predicted that former dancers would score higher on measures of body shame, appearance anxiety, and disordered eating, and lower on flow (i.e., a desired peak motivational state) and inner awareness (of internal bodily sensations), compared to non-dancers. They also hypothesized that differences in these consequences should be accounted for by differences in self-objectification between dancers and non-dancers.

Fifty former dancers and 51 non-dancers (i.e., undergraduate Psychology students) served as the participants for this study. All participants completed questionnaire measures of self-objectification and self-surveillance, body shame, appearance anxiety, flow, awareness of internal bodily states, and disordered eating symptomatology.

Tiggemann and Slater (2001) conducted various statistical analyses. Additionally, a path diagram was constructed as both a descriptive and analytic procedure. Results confirmed their hypothesis and indicated that former dancers scored more highly on self-objectification, self-surveillance, and disordered eating. Also, the differences on disordered eating were accounted for by the self-objectification measures. However, dancers did not differ from non-dancers on body shame, appearance anxiety, flow, or internal states. Thus, the second prediction was not supported. For both dancers and non-dancers, the relationship between self-objectification and disordered eating was mediated by body shame. The researchers conclude that there is an association between dancers and disordered eating and that self-objectification is central to this phenomenon.

In sum, the fundamental message of the reviewed studies is that self-objectification is detrimental to women's well-being on multiple levels. Additionally, this research shows that specific populations of women (e.g., dancers) are more susceptible to the negative effects of self-

objectification. Self-objectification is an issue that presents great concern for women and is a research area that could provide valuable information for this population. This described research (and the current study) could encourage researchers to consider the larger picture of how self-objectification as a construct is affecting women's mental health.

Prevention

The literature reviewed thus far has clearly illustrated that media plays a vital role in negative self-perceptions and that these can lead to serious harmful outcomes, such as heightened self-objectification, negative body image, and the increased risk of eating pathology. Based on this information, Levine and Piran (2004) have suggested that if negative body image can be prevented, the incidence of eating problems would decrease. Accordingly, the prevention of negative body image is a necessary and required field of exploration.

In terms of health and well-being, prevention encompasses various resources and methods in order to avoid and reduce disease and disability, and to promote health by increasing resilience to anticipated stressors (Levine & Piran, 2004). Specifically, these researchers discuss three levels of prevention associated with the avoidance of eating disorders: universal primary prevention, selective primary prevention, and targeted secondary prevention. Universal primary prevention refers to strategies that try to improve the well-being of large groups (i.e., populations). On a large scale, primary prevention aims to change public policies, communities, and institutions. Selective prevention also occurs at the primary level, however, these programs focus on people who are already at high-risk (due to biological, psychological, or sociocultural factors) for developing a particular health concern. The goal of this type of prevention is to protect individuals from developing a particular health concern. An example of a selective primary prevention intervention program would be psychoeducational media literacy programs.

In particular, these types of programs could be applied in macro level settings such as schools and communities. Targeted secondary prevention refers to when a target group does not yet suffer from the full extent of the problem (e.g., an eating disorder), but is at risk because of precursors (e.g., negative body image). A goal of targeted secondary prevention is to halt or slow the progress of the health problem (Levine & Piran, 2004). An example of a targeted secondary prevention intervention could be using specific media literacy tools in cognitive-behavioural therapy as a way to counter-balance the media's effects on negative body image.

Media Literacy

Researchers have responded to the literature on media exposure effects by investigating ways to reduce and prevent such effects. In particular, media literacy has been a promising avenue explored. Media literacy involves critically analyzing media messages as an attempt to prevent the internalization of thin ideals and reduce social comparisons with portrayed models (Levine & Piran, 2004). Critics and commentators of the media tend to avoid divulging just how often the fashion industry uses technology to manipulate media images. Therefore, media literacy tools and programs can help consumers understand how messages are communicated through filtered images and advertising in mainstream media. People become better able to question what is portrayed in the media (as reality) by learning about the strategies typically employed (Hesse-Biber et al., 2006).

In particular, there are two types of media literacy: narrow and broad. Narrow media literacy involves critical thinking about mass media as a way to sharpen skills for resisting negative outcomes on health and well-being. Broad media literacy is known as the 5 A's: awareness, analysis, activism, access, and advocacy. The objectives of media literacy programs (both narrow and broad) are vast and include, for example, promoting healthier body image and

eating behaviours, fostering self-confidence, learning advocacy skills, promoting active media consumption, educating about the prevalence and etiology of eating disorders, and encouraging constructive alternatives as a way to manage weight. Also, experts in media literacy assume that the media is a constructed representation of reality (which people actively process and consume) and that the meaning of media is a transaction between the perceiver, the content, and the cultural contexts (Levine & Smolak, 2006).

Importantly, the tenets and objectives of media literacy overlap with those of prevention: to raise consciousness, to develop competencies and collaborative relationships, and to act to accomplish change (Levine & Smolak, 2006). Therefore, this information illustrates that media literacy and prevention are complementary practices and that their implementation is beneficial for those with body image disturbances.

Psychoeducational media literacy programs. In earlier years, media literacy education was seen as a moralistic issue, with those involved often seeking to completely remove objectifying media from its various sources. However, it evolved into more of an issue of awareness and liberation from social and cultural media restraints (Brown, 1998). Today, media literacy education involves cognitive processes and resultant critical thinking; thus, many prevention programs are psychoeducational and implemented in classrooms (Levine & Prian, 2006). School/community based programs are often effective as this location provides access to a large number of adolescents. Furthermore, media literacy prevention programs can be incorporated into other areas of curricula such as health, social studies, the sciences, and history, for example (Levine & Prian, 2006). From the perspective of education and media literacy, prevention programs are beneficial in reducing the number of those who are negatively affected by media

exposure. Based on the information regarding levels of prevention, the following literature can be seen as a series of selective primary prevention psychoeducational media literacy programs.

Coughlin and Kalodner (2006) examined whether the media literacy program, *ARMED*, was a helpful prevention intervention for young women at low-risk or high-risk for eating disorders. *ARMED* was developed by the researchers based on existing research on media literacy and eating disorders. The goal of their study was to test if this cognitive-behavioural intervention would decrease internalization of the thin ideal and body dissatisfaction in female college students, and secondarily, to determine how level of risk interacts with the effects of media literacy.

Ninety-two undergraduate females served as the participants for this study. Participants in the control condition attended their class, as normal, while those in the experimental condition took part in two, 90-minute media literacy sessions. Various objectives of the *ARMED* sessions included: to explore the thin body ideal and provide a history on standards of beauty; to provide a model for understanding how the media leads to eating disturbances; to increase awareness of social comparisons; to inform participants of techniques used to create ideal images; and to provide women with strategies for challenging media messages. These goals were addressed in an interactive and discussion-oriented manner (including activities and videos) and led by a group facilitator. Measures of participants' presence of psychological and behavioural symptoms of eating disorders, their awareness and acceptance of societal standards of attractiveness, and the extent to which they make social comparisons related to appearance were administered to all of the young women.

Coughlin and Kalodner's (2006) data indicated that those at high-risk for eating disorders reported significant reductions in body dissatisfaction, drive for thinness, feelings of

ineffectiveness, and internalization of beauty standards, compared to high-risk control participants. Consequently, their work provides strong evidence that this media literacy intervention is effective in reducing risk factors for those college women who are considered high-risk for the development of eating disorders.

In relation to Coughlin and Kalodner's (2006) study, Neumark-Sztainer, Sherwood, Collier, and Hannan (2000) also evaluated an intervention aimed at the prevention of disordered eating. However, the researchers accomplished this by implementing a media literacy intervention at the community level (versus in a classroom). Neumark-Sztainer et al.'s (2000) objectives were to examine the impact of the program on media-related skills, body-image attitudes, and dieting behaviours and to investigate the overall feasibility and acceptance of the program.

The population for their sample consisted of 224 fifth and sixth grade Girl Scouts. The intervention, *Free to Be Me*, was developed by dietitians with the guidance of social cognitive theory and is directed toward socioenvironmental, personal, and behavioural risk factors. The program focuses on helping adolescents develop skills for recognizing and understanding the potential effect of images in the media on personal body image and to modify these negative messages and, instead, promote positive messages. Specifically, *Free to be Me* was used in six, 90-minute sessions, which occurred during bi-weekly Girl Scout meetings. Following the conclusion of the program, participants completed questionnaire measures of dieting behaviours, body-related knowledge and attitudes, and media-related knowledge, attitudes, and behaviours. Lastly, program satisfaction and its perceived effect were assessed from the participants, troop leaders, and parents with a survey consisting of open and closed-ended questions.

Results indicated that the *Free to be Me* media literacy intervention program had significant, positive effects on participants' media-related attitudes and behaviours, including internalization of sociocultural ideals and self-effect to combat weight-related norms. Smaller effects (i.e., test statistics) were found for body-related knowledge and attitudes and overall satisfaction with the program was also regarded as high. In sum, the results provided overall satisfaction and support for *Free to be Me* as a media literacy intervention program.

In addition to the school and community-based media literacy interventions empirically established by Coughlin and Kalodner (2006) and Neumark-Sztainer et al. (2000), respectively, Stice and Ragan (2002) examined the effectiveness of a more intensive, semester-long psychoeducational intervention. Specifically, the researchers implemented a program which provided information about the consequences of negative body image and eating pathology, risk factors, prevention and treatment strategies, and facts about sociocultural and media influences. Stice and Ragan (2002) predicted that those who received the intervention would experience decreases in thin-ideal internalization, body dissatisfaction, negative affect, dieting, and eating disorder symptoms.

Specifically, the sample of participants included 88 female undergraduates at the University of Texas. Participants completed an assessment of their level of thin-ideal internalization, body dissatisfaction, dieting, depressive symptoms, eating pathology, and fat consumption. The intervention consisted of 1.5-hour sessions, twice a week over the course of a 15-week semester. The sessions involved primarily educational presentations, group discussions, and guest presentations from local experts. During the semester, participants were required to give a class presentation, complete a paper, and write three essay exams.

Findings indicated that participants who received the intervention demonstrated significant reductions in thin-ideal internalization, body dissatisfaction, dieting, eating disorder symptoms, and weight, compared to control participants. However, decreases in depressive symptoms and fat consumption were not found, contrary to Stice and Ragan's (2002) predictions. The researchers comment that depressive symptoms may not be closely related to body image and eating disturbances and that reducing fat consumption may be a difficult task. Stice and Ragan's (2002) study does provide overall support for the program's future use.

Psychoeducational media literacy programs are effective forms of prevention in reducing media exposure effects, such as the risk of body image (and eating) pathology. The reviewed research has demonstrated that these programs are useful at both the elementary and undergraduate level of education. Furthermore, media literacy programs can be successfully implemented at the community level and at the level of curriculum inclusion. These effects then, provide evidence for significant change in designated aspects of well-being and overall functioning. Media literacy programs are promising as a way to provide information and to cognitively restructure women's thoughts regarding idealized media images and body image.

Specific media literacy tools. In relation to the large-scale psychoeducational media literacy interventions reviewed, research has also investigated the effectiveness of more specific media literacy intervention tools. These tools are briefer and more defined prevention interventions and often include various isolated forms such as videos, readings, and short lectures. In his analysis of media literacy, Brown (1998) comments that it is beneficial for media literacy tools to highlight aspects of the media related to an individual's language, perception, reasoning, reflection, and evaluation. As such, media literacy tools facilitate adaptive behaviour and can help individuals become critical media consumers by drawing their attention to the false

nature of media content (Posavac, Posavac, & Weigel, 2001). Through brief media literacy tools and activities, women learn to examine the ideological aspects of media messaging and discover how these messages affect their behaviour, attitudes, and values.

Media literacy tools could be seen as a form of primary or secondary level prevention strategies. For example, they could be incorporated into larger-scale, psychoeducational prevention programs (such as the ones outlined above); they could be classified as part of the primary prevention series. However, when they are used in more isolated settings, such as an exercise within a therapy session, these media literacy tools would be considered a secondary prevention effort. In sum, the use of psychoeducational media literacy tools for the prevention of established or at-risk body image issues is applicable in multiple settings. The following review of the literature analyzes the effectiveness of various media literacy tools that can be used in the form of secondary prevention or added to existing primary prevention programs. Specifically, these tools have shown to be effective in reducing internalization of the thin ideal and in protecting against the development of eating pathology and body image issues. However, these positive findings are not necessarily consistent; negative or insignificant effects of media literacy interventions have also been demonstrated in the literature and will be reviewed here, as well.

As mentioned, media literacy tools can be portrayed and used in many different forms. For example, Chambers and Alexander (2007) examined the effectiveness of two media literacy modalities: video and text. As teachers, their research stemmed from wanting to facilitate critical awareness of media content and from desiring to investigate if media literacy could reduce their students' bodily comparisons with unrealistic models.

Participants in Chambers and Alexander's (2007) were 75 young women between the ages of 18 and 21 and were assigned to the video condition, the article condition, or to the

control condition. Those in the experimental groups were assigned to watch the video *Slim Hopes* by Kilbourne (1995) or read an article (also by Kilbourne, 1994), which both depict how media images are related to eating disorders. Following the completion of experimental and control tasks, all participants completed a questionnaire. The first part of the questionnaire contained a body image scale using line drawings of various body shapes and sizes. The second part of the questionnaire asked four factual, objective questions based on the media literacy material (e.g., “what percentage of 4th graders are watching their weight?”).

Results indicated that both the video and the article were equally effective in teaching students to be critical consumers of media content. Additionally, the video produced higher positive affective changes in current body image. In other words, media literacy tools seem to foster a more healthy interpretation of one’s body as it is, currently. Chambers and Alexander (2007) conclude that the use of short media literacy tools enhances students’ perception of body image and media messages.

A pioneering study by Posavac, Posavac, and Weigel (2001) evaluated three media literacy interventions that were aimed to prevent women from experiencing body image disturbances due to media exposure. These interventions were specifically developed to interrupt the social comparison process. Posavac et al. (2001) expected that those who were exposed to media images but not an experimental intervention would report more negative body image than those who viewed neutral material. They also predicted that those who received a media literacy intervention before media exposure would report less body image disturbance. Additionally, the researchers hypothesized that those who received an intervention would be less likely to use social comparison processes with the media material.

The participants for Posavac et al.'s (2001) study were 125 undergraduate females who reported moderate to high levels of body dissatisfaction. The researchers chose this target population, as they would be at high-risk for media exposure influence. Three interventions were developed and each included a video of a psychologist talking about the specific topic of artificial beauty, genetic realities, or a combination of messages from the other two forms. In particular, the artificial beauty intervention consisted of information about how beauty in the media is artificially portrayed and, therefore, is not an appropriate source of social comparison. The genetic realities intervention included information about genetic predispositions and how genetics accounts for most women not being able to look like fashion models. Posavac et al. (2001) also included a combination intervention that included arguments used in both of the other interventions. In addition, there was a control intervention on parenting. Participants were deceived and told they would be partaking in three experiments on consumer behaviour. The first experiment was actually the body dissatisfaction measure, as a way to determine their base rate level of this trait. Next, they were randomly assigned to view one of the interventions (or the control intervention). The researchers then exposed the participants to 20 slides of either fashion models or automobiles. Measures of body image disturbance and social comparison were then administered. The assessment of body image disturbance included both quantitative and qualitative aspects, while social comparison was solely qualitative.

Posavac et al. (2001) utilized chi-square and thematic analyses to examine their data. Their results suggest that the media literacy interventions are useful in relieving media-induced body image disturbances. Those who viewed an experimental intervention prior to being exposed to media material reported lower body image disturbance than those who did not receive an intervention, in line with their predictions. The researchers discuss that these media literacy

interventions were likely successful because they allowed women to realize that models are dissimilar to themselves and, therefore, that they are inappropriate targets for social comparison.

Importantly, Yamamiya, Cash, Melynck, Posavac, and Posavac (2005) also tested the efficacy of the artificial beauty and genetic realities interventions in terms of internalization of media ideals. Results of their study provided congruent support for these interventions and found that media literacy interventions prevented negative body image in those with high internalization levels.

In relation to the positive outcomes of Chamers and Alexander (2007) and Posavac et al. (2001), research by Halliwell et al. (2011) examined whether a video intervention exposing the artificial nature of media images could safeguard adolescent girls from body dissatisfaction and body image disturbance. They predicted that without the intervention, exposure to thin media images (compared to control images) would result in decreased body satisfaction and body esteem. The researchers also hypothesized that after receiving a brief media literacy intervention; there would be no difference in body satisfaction and body esteem between those who viewed thin models or control images. The researchers utilized a 2 (intervention condition) x 2 (exposure condition) between-groups design to examine these effects. One hundred and twenty seven adolescent girls took part in the study and the intervention video (i.e., *Evolution* developed by Dove's Self-Esteem Fund) was shown to half of the girls before they viewed either ultra-thin media images or control images. Following media exposure, a questionnaire assessing body satisfaction and body esteem was administered to all participants.

The impact of the intervention was statistically examined and results demonstrated that when the video was not shown, viewing thin models was related to lower body satisfaction and body esteem, compared to viewing the control images. However, these negative exposure effects

were prevented when participants viewed the intervention prior to exposure. In other words, Halliwell et al.'s (2011) findings were in line with their hypotheses. The researchers conclude that the video prevents adolescents from making damaging (upward) social comparisons with media images and that media literacy interventions (such as the Dove video) are useful tools in protecting body satisfaction and esteem. Halliwell et al. (2011) discuss that comparison is prevented due to the artificial construction of the media models. As such, the models become an inappropriate comparison target and result in the maintenance of body image.

Irving and Berel (2001) also examined the impact of two media literacy interventions (i.e., one externally oriented and one internally oriented) in promoting media skepticism and reducing negative body image. It was predicted that the externally oriented (i.e., feminist sociocultural) intervention would have the greatest impact on media skepticism, while the internally oriented (i.e., cognitive) intervention would have more of an effect on negative body image. One hundred and ten female undergraduate students were randomly assigned to the externally oriented condition, internally oriented condition, video-only condition, or no intervention condition. In particular, the externally oriented intervention focused on teaching women to think critically about advertisements and advocated for social activism. In the internally oriented intervention, participants focused on identifying and challenging cognitions that may be linked to media exposure. After the appropriate intervention, all participants completed a questionnaire assessing body image, media skepticism, and affect.

Results indicated that the interventions were successful in increasing skepticism about the realism and desirability of thin, idealized media. However, there were no differences on negative body image following the interventions. Irving and Berel (2001) suggest that this finding may indicate that negative attitudes may require more extensive interventions. Notably, this study

illustrates inconsistent findings regarding media literacy effectiveness. In contrast to the positive, relief effects that many studies have found, not all interventions result in such effects. It is important to note that there is a level of unpredictability in how media literacy interventions impact women.

The literature reviewed indicates that media literacy can take on a number of forms. However, videos, articles, and short lectures are all tools that have been proven to be useful in reducing adverse effects of media exposure on various aspects of women's well-being. Specifically, these tools are beneficial in making women aware of the incongruence of media models as targets for social comparison. Also, these media literacy education intervention tools may be useful in their isolated form, or as features of larger, more comprehensive, preventative media literacy programs. Although both media literacy programs and tools show promising effects in reducing negative body image due to media exposure, another critical finding to consider is the inconsistency in these outcomes. The reviewed literature (as well as the study to be discussed next) has also demonstrated that media literacy can result in insignificant and even negative effects on body image. As media literacy aims to positively affect women by preventing the internalization of thin ideals and reduce social comparisons with portrayed models (Levine & Piran, 2004), these reviewed effects are evidently in opposition to the intentions of media literacy material. Consequently, the positive, insignificant, and negative findings demonstrate that further work needs to be done in order to more accurately determine how media literacy interventions affect various aspects of young women's body image.

Media literacy and self-objectification. Although most literature has focused on self-objectification as a trait, objectification theory also proposes that self-objectification can be seen as a state, as well (Fredrickson & Roberts, 1998). Trying on a bathing suit, being exposed to fat

talk, and anticipating a male gaze are all situations that have been found to increase state self-objectification and consequently, body shame (Choma, Foster, & Radford, 2007). These researchers posit that media exposure is likely the largest source of self-objectification and thus, may be one of the most harmful situations for women. Based on this analysis, media literacy may serve as a possible source of self-objectification and may result in unintended consequences. In other words, self-objectification is another feature of well-being, which requires clarity in terms of how media literacy interventions may affect women.

Choma et al. (2007) used objectification theory as a framework to understand the effectiveness of media literacy interventions. Their purpose was to evaluate whether a common media literacy intervention raises self-objectification and to determine the effects of this intervention on young women's body image. The qualitative portion of the study was used as an additional way to clarify the inconsistencies in research on body image and media literacy. By using this methodology, Choma et al. (2007) hoped to gain a deeper understanding of women's experiences with media literacy. Specifically, they hypothesized that media literacy may involve both negative (i.e., heightened self-objectification) and positive (i.e., well-being) effects.

Their first study was qualitative. Fifty undergraduate women watched a popular media literacy video (i.e., *Slim Hopes*, Kilbourne, 1995). They also completed three open-ended questions about their reactions to the video: "What are your general reactions/feelings to this film? Please explain," "Did watching the video change the way you think/feel about yourself/others? Please explain;" and "Did the video have an impact on you in other ways? If yes, please explain." The researchers used "open coding" to analyze their data. This process involved analyzing the data without an existing framework to allow themes to emerge. After themes were identified, a deductive analysis was used to analyze the responses through open

coding as a way to confirm the themes. The results of Choma et al.'s (2007) first study showed four themes: critical thinking, positive emotions, no change, and negative emotions. In examining the theme of critical thinking, the researchers found key components of awareness and of new skills and perspectives. Choma et al. (2007) found better and increased confidence, in relation to the theme of positive emotions. Having previous knowledge, already feeling confident, and also feeling helpless were contributing factors to the theme of no change. Lastly, anger and shock, a concern for others, distress, and self-objectification were evident as features in the negative emotions theme.

The second study was quantitative and involved 366 undergraduate women being randomly assigned to view the media literacy video, or a control video. Participants in both conditions completed a questionnaire measuring state and trait self-objectification, awareness, self-esteem (i.e., body esteem, social esteem, and performance esteem), and positive and negative affect.

Results indicated that the intervention led to greater awareness, higher self-esteem, and greater positive affect. However, greater negative affect and self-objectification were also found. These results are consistent with Choma et al.'s (2007) predictions. The authors discuss that heightened self-objectification may help to explain negative feelings after a media literacy intervention, despite positive intentions. However, media literacy interventions also have clear positive implications. Both parts of the study demonstrate that women who received the intervention reported greater awareness, higher self-esteem, and greater positive affect.

It is important to note that although heightened self-objectification was found, it was done so without exposing the women to media imagery. Adding this variable could serve as a way to provide new information and further explain how self-objectification affects women.

Additionally, Choma et al.'s (2007) work is the only study, to the researcher's knowledge, that has examined media literacy effects from the perspective of objectification theory. Due to the limited work on media literacy, self-objectification, and media exposure, future research is warranted and was addressed in the current study.

Current Study

Almost half of Canadian adolescent females are dissatisfied with their bodies (Statistics Canada, 2011). Statistics Canada has also recently found the prevalence of eating disorders in Canadian women to affect between 1% and 3 % of this population ("Section D-Eating Disorders", 2013). These unsettling statistics have also been empirically supported in terms of their relation to media exposure. The literature reviewed demonstrates how media adversely affects multiple areas of well-being such as negative self-esteem, body dissatisfaction, and increased self-objectification, for example. Researchers have also addressed investigated interventions to reduce these unfavourable outcomes. Media literacy has the potential to mitigate the media's negative influence, however, inconsistencies exist in the literature regarding the effects of media literacy interventions, which target body image. Drawing from these findings, one objective of the proposed work was to provide clarity on the effectiveness of media literacy interventions regarding specific aspects of well-being. Additionally, Choma et al.'s (2007) study is the only one (to date) that has investigated the perception of media literacy effects through the lens of objectification theory. This study failed to examine the effects based on media exposure, but rather investigated the isolated effects of the intervention. Therefore, the current study also addressed this gap in the literature by examining perceptions of a media literacy tool and media exposure, from the viewpoint of objectification theory. There is also no literature conducted on

this particular topic using a Western Canadian sample, which provided further support for this examination.

The current study examined perceptions of a media literacy education intervention tool and body image in young women. The following research questions were addressed:

1. How are participants' self-esteem, body satisfaction, and self-objectification affected by receiving or not receiving the media literacy education intervention?
2. What are participants' perceptions of a media literacy education intervention and of media imagery?
3. How are participants' perceptions of media imagery differentially affected by a media literacy intervention, compared to those participants who do not receive the media literacy education intervention?

The corresponding hypotheses were: (1) viewing the media literacy education intervention would result in increased self-esteem and body satisfaction. Self-objectification was included as an exploratory variable as its outcome has not been specifically tested in relation to a media literacy intervention coupled with media exposure; (2) the media literacy education intervention would have a positive impact on participants' perceptions of themselves, others, and/or the media and (3) those who are randomly assigned to view the media literacy education intervention would report increased perceptions of media imagery skepticism, compared to those who do not receive the media literacy education intervention.

CHAPTER THREE: METHOD

The methodology for this study is outlined in the following chapter. Firstly, the research questions and my theoretical perspective will be discussed. Details of participant recruitment will be presented and the research design and variables will be explicitly defined. Measures are described next, including their validity and reliability. Questionnaire design and assembly will then be explained. Subsequently, the procedures of the study, including an explanation of obtaining consent, data collection and debriefing, will be discussed. The chapter will end with a description of data analysis and ethical considerations.

Research Questions and Hypotheses

The current study examined perceptions of a media literacy education intervention tool and body image in young women. The following research questions were addressed:

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and/or the media; and (3) those who are randomly assigned to view the media literacy education intervention would report increased perceptions of media imagery skepticism, compared to those who do not receive the education intervention.

Theoretical Orientation

Objectification theory, proposed by Fredrickson and Roberts (1997), provided the theoretical grounding for this study. The theory focuses on the way in which society's objectification of women's bodies may increase their vulnerability to a wide range of psychological issues, including eating disorders. According to this view, girls and women absorb the media culture of beauty, internalize this unrealistic perspective, and adopt an observer's view of themselves. Being viewed by others in multiple, objectifying ways (e.g., sexually objectified) can lead women to internalize an outsider's perspective on the self (i.e., self-objectification) (Fredrickson & Roberts, 1997). The process of self-objectification can result in women personally adopting this view and treating themselves as evaluative objects.

Using objectification theory as the theoretical lens for this research was appropriate in that there is a shared assumption (between objectification theory and the researcher's personal views) that women's mental health issues are of vital importance to study. This view of significance stems from objectification theory's outline of inherent pressures from society (e.g., thin models in the media), which result in women being more susceptible to various mental health problems. The media as a means of conveying the idealized culture of beauty, which negatively impacts women is another shared assumption between the theory and the researcher. In other words, objectification theory's tenets aligned with the examination of media exposure as being harmful to women's well-being.

Participants

The target population for the current study was undergraduate women, ages 18-28. This population mirrors that of Choma et al. (2007), Irving and Berel (2001), and Yamamiya et al.'s (2005) previous work and was chosen based on the elicitation of significant effects found in these studies. The target population also aligns with objectification theory, whose authors posit that younger women's (as opposed to middle aged women) early experiences of sexual objectification leave them most vulnerable to negative psychological and experiential effects. These effects also increase their risk for several poor mental health outcomes (Fredrickson & Roberts, 1997). The current study used convenience sampling. Convenience sampling is a form of non-probability sampling and consists of using people who are readily available and accessible to participate in research (Ray, 2009). Participants were recruited through an online posting on the Introductory Psychology participant pool at the University of Saskatchewan. A bulletin posted on PAWS (the University of Saskatchewan's online student information centre), and a verbal advertisement in various undergraduate Education classes and graduate Educational Psychology classes also served as sources of recruitment. These methods of sampling and recruitment were proposed as it is presumed that most of the Introductory Psychology students, as well as undergraduate Education students, fit the target age category. The inclusion criterion was that participants must be women, but they were not excluded if they were out of this specified age range. There were no other limiting factors to participant selection. There was no anticipated relationship between the participants and the researcher. The same recruitment invitation was used for all recruited participants to ensure the integrity of their relationship with the researcher and to increase their comfort in disclosing information. To facilitate sample

description, demographic information collected from participants included their age and ethnicity.

The questionnaires completed by students who were part of the Psychology participant pool were compensated with 1 credit (equal to 1 bonus mark towards their final Psychology grade) for each half-hour of participation. This is standard practice in all introductory Psychology classes. Psychology participant pool participants were compensated regardless of completion of survey. Notably, participants recruited from other sources (e.g., PAWS, Education classes) were not compensated in any way for their participation.

Power calculations were conducted utilizing the MorePower 6.0 statistical calculator to estimate the predicated sample size needed. Power of .8 was chosen, as it is a convention proposed for general use by researchers (Cohen, 1992). To obtain power of .8 (i.e., showing good power) and correlations of .3 (i.e., demonstrating a moderate relationship) calculations indicated that the proposed study would need to obtain approximately 85 participants. Based on these calculations, the goal was to obtain 100 participants in order to further increase statistical power.

Research Design and Variables

The current study employed a one-way between-subjects experimental design, and was conducted from a mixed-methods perspective. The independent variable was exposure to the media literacy intervention. The media literacy education intervention tool was the Dove Self-Esteem Fund video *Evolution*. Specifically, participants were randomly assigned to receive the intervention (i.e., intervention group) or not to receive it (i.e., control group). The effects of the independent variable were measured by assessing the following dependent variables: self-objectification, self-esteem, body satisfaction, media imagery attitudes, and media literacy

perceptions. The design consisted of group comparison between the intervention and control conditions.

Measures

Self-objectification. Self-objectification can be explained as the process of internalization of others' evaluations, which results from the normative sexual objectification of the female body by society (Fredrickson & Roberts, 1997). Noll and Fredrickson's (1998) Self-Objectification Questionnaire (SOQ) was used to assess participants' trait self-objectification (see Appendix B). Specifically, the measure was designed on the basis of objectification theory (Fredrickson & Roberts, 1997) and partially on the Body Esteem Scale (Franzoli & Shields, 1984). The measure was established by testing a mediational model of disordered eating, which proposed that body shame mediates the relationship between self-objectification and disordered eating (Noll & Fredrickson, 1998). The scale consists of ten items identifying various body attributes (e.g., health, weight, sex appeal). The participant ranks these features on a scale from 0 to 9, with 0 indicating having the most impact on physical self-concept and 9 having the least impact on self-concept. Participants cannot assign the same value more than once. Total scores of the SOQ are calculated by separately summing the assigned ranks for appearance-based items (i.e., items 3, 5, 6, 8, and 10) and the competence based items (i.e., items 1, 2, 4, 7, and 9). Next, the competence sum is subtracted from the sum of the appearance rankings. Overall scores range from -25 to 25 and higher scores reflect more emphasis on appearance (i.e., higher levels of self-objectification). The scale has been found to relate to other measures that assess fixation with aspects of the physical body. These positively correlated measures include the Appearance Anxiety Questionnaire (Dion, Dion, & Keelan, 1990) and the Body Image Assessment (Williamson, Davis, Bennett, Goreczny, & Gleaves, 1985). The correlations provide support for

the SOQ tapping into the construct of preoccupation with appearance. Thus, the SOQ is said to have established construct validity (Choma et al., 2007; Noll & Fredrickson, 1998). The internal consistency score was not calculated for this measure, as it consists of rank ordered data (Field, 2009).

Self-esteem. Self-esteem refers to a person's evaluation of the self and the affective reactions to that evaluation (Younger, Adler, & Vasta, 2012). Rosenberg's Self-Esteem Scale (Rosenberg, 1965) was used to measure global self-esteem (see Appendix C). The self-report scale consists of a list of 10 items, which are measured on a 4-point scale ranging from *strongly agree* to *strongly disagree*. Scoring of the Rosenberg Self-Esteem Scale is also determined by a 4-point system, with *strongly agree* representing a score of 3 and *strongly disagree* indicating a score of 0. Of note, items 2, 5, 6, 8, and 9 are reverse scored. The overall self-esteem score is determined by summing the scores (and reverse scores) for the 10 items; higher scores represent higher self-esteem. The original sample from which the scale was developed included over 5,000 high school students from randomly selected schools across the New York State. This large, diverse, and random sample points towards the measure being generalizable (i.e., externally valid) to the larger population of high school students (Rosenberg, 1965). Previous studies have found this scale to produce high reliability, as demonstrated by Cronbach's Alpha of .92 (e.g., Tiggemann, 2003). The calculated Cronbach's alpha is in line with the previous psychometric data; it was .88 for the current study.

Body satisfaction. An internalized thin ideal, coupled with this incongruity between how one looks and how one desires to look can be described as body dissatisfaction (McCarthy, 1990). The dependent variable of body satisfaction was measured using the Body Image States Scale (BISS; Cash et al., 2002), which is a self-report questionnaire (see Appendix A). The study

in which the measure was established involved voluntary questionnaire completions and a series of psychometric analyses. This measure consists of six questions and asks the participants to choose the statement that best describes how they feel at that very moment. The questions prompt participants to choose their responses from a range of nine stems (e.g., *Extremely dissatisfied*, *Neither dissatisfied nor satisfied*, *Slightly satisfied*, *Extremely satisfied*). The stem completions for the first three questions include: *...with my physical appearance*, *...with my body size and shape*, and *...with my weight*. In the fourth question, *dissatisfied* and *satisfied* are removed from the previous list of stems and the stem completions consist of *physically attractive* or *physically unattractive*. The fifth and sixth questions include possible stems of, *A great deal better*, *Just slightly better*, *About the same*, *Somewhat worse*, and *Much worse*, for example. The stem completion for question five is, *...about my looks than I usually feel* and for question six is, *...than the average person looks*. The overall score is determined by calculating the participant's average on the six questions, based on a scale of 1 to 9. Items 2, 4, and 6 are to be reverse scored. Lower scores indicate more negative body image states and higher scores reflect more positive body image states. The scale developers have acknowledged good reliability of the measure with Cronbach's alpha coefficients of .77 and .87 (Cash et al., 2002; Yamamiya et al., 2005) and a test re-test reliability coefficient of .69 (Cash et al., 2002). Use of this scale in the present study indicated a reliability coefficient of .45. It has also been demonstrated that the BISS is consistent with other measures that examine a cognitive perspective of body image in response to appearance-related cues (i.e., construct validity) (Tiggemann, 2001; Williamson, 1996).

Media imagery attitudes. An attitude can be understood as a defined way of thinking or feeling about something or someone and is typically reflected in one's behaviour (Avis, 2002). Media imagery attitudes, therefore, can be seen as personal thoughts and feelings towards media

material (i.e., magazine advertisements). The Media Attitudes Questionnaire (MAQ; Irving, DuPen, Berel, 1998) is a self-report questionnaire and was used to measure media imagery attitudes (see Appendix D). The MAQ was created for Irving et al.'s (1998) study, which examined a media literacy program for high school students. The MAQ is a 22-item measure with six subscales. In particular, three items assess perceived realism of media images, three items examine perceived similarity of models portrayed in the media, four items assess desirability of looking like models portrayed in the media, five items examine positive expectancies with being thin, five items assess identification with models portrayed in the media, and two items assess intentions to engage in dieting behaviour. Participants rate the extent to which they agree with the statements on a Likert scale ranging from *completely disagree* (1) to *completely agree* (5), with higher scores indicating higher perceived realism, similarity, desirability, identification, positive expectations, and dieting. Lower scores would indicate a higher level of media skepticism. The overall MAQ score is determined by summing all the scores on each individual item. Subscale scores can also be calculated by summing the items specific to each subscale measure. The scale developers found good internal reliability (as measured by Cronbach's alpha) with coefficients ranging from .73 to .92 (Irving et al., 1998). Subsequent studies have also found sound internal reliability ratings for the measure as a whole, as demonstrated by a coefficient of .88 (Irving & Berel, 2001). The present study also indicated good reliability with a Cronbach's alpha of .86. There is currently no documented validity information for the MAQ. However, due to significant effects found in both Irving et al.'s (1998) and Irving and Berel's (2001) work, it is inferred that the MAQ is a valid tool.

Media literacy perceptions. Perception is defined as a way of regarding, understanding, or interpreting information (Avis, 2002). Media literacy perceptions can then be referred to as an

individual's understanding or interpretation of media literacy information. Media literacy perceptions were measured by asking three open-ended questions: "What are your general reactions/feelings to this video? Please explain," "Did watching the video change the way you feel/think about yourself/others? Please explain;" and "Did the video have an impact on you in other ways? If yes, please explain." The use of these questions comes directly from Choma et al.'s (2007) study, which examined a media literacy intervention through the lens of objectification theory. Notably, there was no psychometric information provided for these open-ended questions.

Media literacy intervention. The intervention for the current study was the short *Evolution* video produced by Dove for their Self-Esteem Fund project. The video features a headshot of a woman and takes the viewer through the process of getting her hair and makeup done. Next, her photo is taken and her image is then digitally altered (e.g., her face is thinned, her eyes are enlarged, her cheeks are contoured). Lastly, the viewer sees her image transferred onto a billboard and the clip ends with the catchphrase, "no wonder our perception of beauty is distorted." The video is publically available online and is approximately one minute and sixteen seconds long. *Evolution* has gained popularity in social media and has been used in previous literature as an intervention to produce positive effects on body image and body dissatisfaction (e.g., Halliwell et al., 2011). The video focuses on the artificial nature of media imagery, so it is seen as comparable to the Artificial Beauty intervention, also used in previous research (i.e., Povasac et al., 2001; Yamamiya et al., 2005). Based on this information, the video can be seen as a reliable and valid intervention tool. However, there are currently no other studies that have published reliability and validity information for this particular intervention stimulus, thus, it is being used as an exploratory tool.

Magazine advertisements. A compilation of 30 magazine advertisements (e.g., Cosmopolitan, Vogue) portraying images of overtly thin and attractive models were used as the media exposure component of the study (see Appendix F). Fashion and beauty magazines were used because they typically feature more advertisements depicting thin women than other types of magazines (e.g., travel, cooking). The researcher personally gathered the images, and because of this process, a selection panel to examine their accuracy in portraying thinness and attractiveness occurred. This process ensured that the researcher's personal bias was controlled for and that the selected images reflected a significant level of the outlined traits. The selection panel consisted of having classmates rate (via a Likert-scale) the portrayed level of thinness and attractiveness of various media advertisements. The images that produced the highest ratings of these traits were included as stimuli in the actual study. The use of magazine advertisements as a form of media to elicit significant, negative effects comes from previous work by Tiggemann (2003) and Harper and Tiggemann (2008), for example, and can be viewed as a reliable means of producing these effects. The researcher did not consider the exposure to ultra-thin and idealized media images in this study as surpassing that of exposure in daily life (e.g., newsstands, magazines at the grocery store check-out, social media). Although exposure to media images has proven to be harmful to women's well-being, the stimuli are not considered to be damaging, above exposure women would already experience in their daily activities.

Questionnaire Design and Administration

The questionnaire assessing self-objectification, self-esteem, body satisfaction, media imagery attitudes, and perceptions of media literacy was assembled and made available to participants by means of a link on Qualtrics, an online survey/questionnaire-hosting site. The particular instruments were chosen as they are commonly employed in the literature as measures

for these dependent variables. Questionnaire methodology was chosen because it allows for the potential of mass distribution and can be easily administered to high volume communities. High schools, universities, or businesses are plausible examples. On the basis of its flexible nature, the electronic form of the questionnaire could be transformed to a paper document (or vice versa), if required, in order to reach more (or a target group of) people. Questionnaires are high in anonymity and are aimed at being precise and time effective, qualities both researchers and participants value (Ray, 2009).

Procedures

Recruited participants were provided with the link to the study in the recruitment invitation (see Appendix H). By clicking it, they were brought to the consent form (see Appendix I & J). At this point, participants were also encouraged to contact the researcher with any questions or concerns. The consent form also outlined the possibility of some participants viewing the media literacy education intervention tool. Upon agreement to participate, participants were randomly assigned to either receive the media literacy education intervention (i.e., the intervention group) or not to receive the intervention (i.e., the control group). Random assignment was accomplished by Qualtrics (i.e., the survey hosting site), which has a function that enables participants to automatically be randomly assigned to conditions. To ensure that those assigned to view the intervention actually watched the video (as opposed to skipping it), a function was applied (via Qualtrics) that disallowed the women to proceed without watching it. Women in both groups (i.e., intervention and control) then viewed a compilation of magazine advertisements (e.g., *Cosmopolitan*, *Vogue*) portraying images of overtly thin and attractive models (see Appendix F). Participants were administered the questionnaire (assessing self-objectification, self-esteem, body satisfaction, and media imagery attitudes) following the media

exposure and were tested individually (i.e., between-subjects design). Those who were assigned to view the media literacy education intervention tool also completed three open-ended questions in order to assess their perceptions of the intervention. The study took approximately 20 minutes of each participant's time. Importantly, the data collected did not include any identifying information, to ensure participant anonymity. Upon completion of the questionnaire, participants were taken to a debriefing form, and were thanked for their involvement (see Appendix K). Data collection took place on a computer of the participant's choice, and at the time and location that was best suitable for them.

Data Preparation

Throughout data collection, the researcher periodically checked to make sure the survey elements were running correctly (e.g., randomization, skip logic, embedded video technology). This was accomplished by viewing the survey within the Qualtrics website. The researcher did not, however, preview specific participant responses. Once data collection was complete, the survey data were downloaded and imported directly into SPSS 22.0 for Windows. In order to ensure soundness of the statistical analysis, the data were analyzed using histograms and a descriptive analysis to determine if outliers were present. Other aspects of data preparation included reverse scoring necessary items, calculating total scores for measures, and computing new variables for these scores. These total scores are what were used throughout the final data analysis. The qualitative measures were also imported directly into SPSS. However, they were then transferred into Microsoft Word, to facilitate thematic analysis.

Data Analysis

Several results were calculated and analyzed using SPSS 22.0 for Windows. These included independent *t*-tests to examine group differences, an exploratory correlation matrix,

descriptive statistics, and thematic analysis (Braun & Clarke, 2006) to explore intervention perceptions. Research questions are presented followed by an explanation of the appropriate analytic procedure.

Research question 1. The first research question posed in this study was: how are participants' self-esteem, body satisfaction, and self-objectification affected by receiving or not receiving the media literacy education intervention?

This research question was addressed by having the media literacy education intervention tool serve as the independent variable. This variable had two levels: to receive the intervention or to not receive the intervention. The dependent variables measured quantitatively were self-esteem, body satisfaction, and self-objectification. The analysis for this research question was a series of three independent *t*-tests, in order to examine response differences in those who received and those who did not receive the intervention. In particular, this type of analysis is used when one wants to compare the mean score for a continuous variable, for two different groups of subjects. An independent *t*-test requires a categorical independent variable and a continuous dependent variable (Pallant, 2007). In the current study, the categorical variable was whether they received the intervention or not, and the continuous variables were self-esteem, self-objectification, and body satisfaction. This series of tests was appropriate as results of these *t*-tests determined whether the intervention or control groups differed in terms of their level of the particular dependent variable (Pallant, 2007). The examination of group differences (using independent *t*-tests) was logical because it answered the research question.

A correlation matrix containing all of the dependent variables was also used in analysis as a way to investigate potential relationships between variables. Pearson product-moment correlations (i.e., *r*) were calculated due to their frequency of use among statisticians and their

ease of interpretation (Tabachnick & Fidell, 2013). This test is parametric and requires interval data. These associations provided further insight as to how aspects of body image are helped (or harmed) by media literacy interventions, for example. Correlations are considered an appropriate analysis because they measure and describe the linear relationship between variables. Additionally, correlations inform researchers about the direction (positive or negative) and strength of the relationship (Tabachnick & Fidell, 2013).

Research question 2. The second research question examined was: what are participants' perceptions of a media literacy education intervention and of media imagery?

The second research question considered the media literacy education intervention tool as the independent variable. Perceptions of media literacy interventions (i.e., a qualitative measure) and media imagery attitudes (i.e., a descriptive measure used to represent participants' perceptions) served as the dependent variables. Thematic analysis (Braun & Clarke, 2006) was used for the qualitative exploration of participants' perceptions of the media literacy education intervention. Thematic analysis is a method for identifying, analyzing, and reporting patterns and themes within a data set. It organizes, describes, and interprets various aspects of the variable in question (i.e., media literacy perceptions) (Braun & Clarke, 2006). The themes that were identified through the process of thematic analysis were used to further understand and contextualize the data and the posed research question.

Descriptive statistics (e.g., mean, standard deviation) were used to address how all participants responded to the quantitative measure of media attitudes. This type of analysis was appropriate because descriptive statistics provide characteristic, summary information about a sample, measure, and/or research question (Pallant, 2007). This descriptive information provided insight on which media imagery attitudes are most prevalent in the current sample. This analysis

was also conducted on the split file (i.e., by group) in order to examine potential differences in attitudes between the control and intervention conditions.

Research question 3. The third research question investigated was: how are participants' perceptions of media imagery differentially affected by a media literacy intervention, compared to those participants who did not receive the intervention?

The independent variable was the media literacy education intervention tool and the dependent variable was participants' attitudes towards media imagery. The analysis for this research question was an independent *t*-test, in order to examine response differences in those who received and those who did not receive the intervention. The categorical variable was whether they received the intervention or not, and the continuous variable was participants' attitudes towards media imagery. This test is appropriate, as the results told us if (and how) the dependent variable was affected by the manipulation of the independent variable.

The original level of confidence at which the hypotheses were tested was 95%. This level of confidence was used because at this rate, we know that the sample means will fall within ± 1.96 standard error units from the mean of the sampling distribution (Tabachnick & Fidell, 2013). The 95% confidence interval indicates that only 5% of the time will we get a sample mean that lies at a distance far enough away from the mean of the sampling distribution that the confidence interval will not include μ . In other words, the probability that the confidence interval contains μ is .95 (Tabachnick & Fidell, 2013).

Ethical Considerations

An application for review and approval by the Behavioral Research Ethics Board (Beh-REB) at the University of Saskatchewan was submitted. In particular, the fact that the study was of minimal risk and that it did not involve any deception was emphasized in the ethics

application (i.e., the objectives were clearly outlined). A written consent form (where participants' right to withdraw at any time will be acknowledged) and debriefing form (explaining the full nature of the study) were also drafted and included in the study. Qualtrics, the survey-hosting site, is located in the United States. Therefore, the ethics board was made aware that the data would be stored outside of Canada. This information was also included in the consent form. Importantly, the questionnaire assessed aspects of body image and it was understood that this could potentially elicit stress for some participants. Information regarding counselling services (e.g., University of Saskatchewan Counselling Services, 24 hour Saskatchewan healthline, Mental Health and Addiction Services) was provided in both the consent and debriefing forms, should participants have experienced emotional distress. Also, the online data were securely stored in a locked computer file. They will be stored for a minimum of five years and then destroyed. Once these issues of informed consent, voluntary participation, confidentiality and anonymity, and safeguarding participants were assessed and approved by the Beh-REB, data collection commenced in accordance with the outlined procedures.

CHAPTER FOUR: RESULTS

The results of the statistical analysis conducted on the data set will be presented in this chapter. A description of the preliminary analysis will be presented first, followed by participant characteristics of the collected sample. An explanation of the descriptive characteristics of the measures included in the analyses will then be presented. The chapter will end with a description of the data analysis for the specific hypotheses tested in the current study. Research questions are presented followed by an explanation of the associated statistical findings.

Preliminary Analysis

Data preparation for analysis consisted of an examination using histograms, skewness and kurtosis scores, and *z*-scores to determine whether the data were normally distributed and whether outliers were present within the data. The variables used in data analysis reflect the total calculated score for that particular variable.

Participant Characteristics

Descriptive statistics were calculated for the collected data set. A total of 183 participants took part in the study. There were a total of four missing cases (2.2%), but because this is less than 5%, these cases are considered negligible (Schafer, 1999). The valid *N* used in data analysis was 179. In order to avoid exclusion, inquiries regarding gender were not included in the study. However, the recruitment invitation and consent form clearly outlined that the study was examining body image in young women. It is assumed then, that the sample consists of females. One hundred and fourteen of these participants were recruited from the undergraduate Psychology participant pool. The rest were recruited from verbal advertisements in undergraduate Education classes and graduate Educational Psychology classes, as well as a bulletin posted on PAWS. Ninety-nine participants were randomly assigned (through the survey

building website, Qualtrics) to serve as the control group, while the intervention group consisted of 84 participants. In other words, 84 participants viewed the media literacy education intervention tool, and 99 did not view it.

The majority (71%) of participants were between the ages of 18 and 21. Seventeen percent were between the ages of 22 and 25, 5% between the ages of 26 and 29, and 7 % of participants identified themselves as 30 years of age or older. Ethnicity was included as an open-ended question. Thematic analysis was used to analyze these responses and indicated that the majority of participants identified their ethnicity as Caucasian. This category was combined to include related responses such as “White” and “Canadian.” Other significant themes of ethnicity that emerged included Asian (a combination of “Asian,” “Chinese,” “Filipino,” Vietnamese,” and “Cambodian”), African, European, Hispanic, and First Nations. Outlying responses (e.g., “Biracial,” “Caucasian (white as snow),” “confident”) were not included in the thematic analysis.

Measures

Self-esteem, as measured by Rosenberg’s Self-Esteem Scale (Rosenberg, 1965) demonstrated the full range of expected scores. For the variable of self-esteem, a visual examination of the histogram and an analysis of the skewness and kurtosis scores indicated an acceptable distribution of scores (i.e., not larger than +/- 1 [Field, 2009]). Self-objectification, as measured by the SOQ (Noll & Fredrickson, 1998) and media attitudes, as measured by the MAQ (Irving, DuPen, & Berel, 1998), also demonstrated the full range of scores, both with adequate distributions. Body satisfaction was measured by the BISS (Cash et al., 2002) and the descriptive analysis indicated an expected range of scores, also with an acceptable distribution.

A conversion of the variables to z-scores and a comparison of them to the limits of the normal curve were also used to determine if outliers were present (Field, 2009). In other words, a

z -score of 1.96 is significant at $p < .05$, above 2.58 is significant at $p < .01$ and z -scores above 3.29 at $p < .001$. Large samples produce small standard errors so when sample sizes are large, significant values emerge from even small deviations in normality. In large samples, the criterion to be applied should be extended to 2.58, as a way to mitigate this possibility (Field, 2009). A threshold of 2.58 (at $p < .01$) was then used for analysis in the current sample. Z -scores are a useful measure because we can accurately compare skew and kurtosis values on different scales of measurement (Field, 2009). The z -score analysis indicated that there were no significant outliers present in the data. Table 1 outlines the range, mean score, standard deviation, skewness, kurtosis, and z -score statistics for each total-score measure utilized in the final analyses.

Table 1

Range, mean, standard deviation, skewness, kurtosis, and z-score (in brackets) for total score measures used in analysis.

Variables	Range	Mean	SD	Skewness (z)	Kurtosis (z)
Self-Esteem	27.00	22.20	5.35	.24 (1.33)	.01 (.02)
Media Attitudes	71.00	62.87	14.22	.07 (.38)	-.31(.86)
Self-Objectification	38.00	-.02	8.51	.25 (1.37)	-.51 (1.42)
Body Satisfaction	38.00	28.06	6.61	-.26 (1.42)	-.19 (.54)

Note. SD=standard deviation

As the current study examined group differences, it was important to examine the normality of the distributions in a split form (i.e., by group), as well (Field, 2009). This analysis demonstrated the full range of expected scores for the variables of self-esteem, media attitudes, self-objectification, and body satisfaction, in both the control and intervention conditions. A visual examination of the histograms and of the skewness and kurtosis scores also indicated

acceptable distributions across all variables, in both conditions. Z-scores were again calculated to determine if there were outliers present in the split file data. This analysis demonstrated that no outliers were found; all values (in both groups) were below the specified 2.58 (at $p < .01$) criterion.

Statistical Analysis

Research questions are presented followed by an explanation of the statistical findings. All analyses were conducted in SPSS 22.0 for Windows.

Research question 1. The first research question posed was: how are participants' self-esteem, body satisfaction, and self-objectification affected by receiving or not receiving the media literacy education intervention?

This research question was addressed by conducting three independent *t*-tests in order to examine group differences. Notably, there was homogeneity of variances for all three *t*-tests, as assessed by Levene's Test for Equality of Variances. On average, participants experienced higher self-objectification when they received the media literacy education intervention tool, $M = 0.06$ ($SD = 8.97$), compared to when they did not receive the intervention, $M = -0.08$ ($SD = 8.14$). This difference was not significant, $t(179) = -0.11$, $p = .91$, and the effect size was also minimal, $d = -0.02$. This finding does not align with the researcher's hypotheses. Also in contrast to the researcher's prediction, participants' self-esteem was affected almost identically by receiving or not receiving the intervention, with those in the control condition experiencing only a slightly higher level of self-esteem, $M = 22.36$ ($SD = 4.91$), than those in the intervention condition, $M = 22.01$ ($SD = 5.85$). The *t*-test examining the variable of self-esteem also did not indicate a significant difference between the intervention and control conditions, $t(181) = 0.44$, $p = .66$, nor a meaningful effect size, $d = 0.07$. Participants in the intervention condition experienced

more body satisfaction (i.e., more positive body image), $M = 28.20$ ($SD = 6.90$), than those in the control condition, $M = 27.95$ ($SD = 6.40$). This difference was in the direction that the researcher predicted, however, the t -test demonstrated that this difference was not significant, $t(180) = -0.25$, $p = .81$, and that the effect size was minute, $d = -0.04$.

Conducting multiple t -tests increases the chance of a type 1 error and restricts the alpha level used in the analyses (Tabachnick & Fidell, 2013). The original alpha was set at .05. The restricted alpha used for the analyses in the current study was .02. This calculation was found by dividing the original alpha (i.e., .05) by the number of t -tests conducted (i.e., 3). The smaller restricted alpha makes a more stringent cut-off for significance and makes it even less likely that the effects found were due to extraneous variables (Field, 2009).

A correlation matrix containing all of the dependent variables was also used as a way to investigate potential linear relationships between variables. Results of this analysis indicated significant relationships between the variables of self-esteem, self-objectification, and body satisfaction. As self-esteem increased, self-objectification decreased. Although self-objectification was included as an exploratory variable, given the researcher's subsequent predictions, this relationship could be expected. As self-objectification increased, body satisfaction also increased. Finally, as body satisfaction increased, self-esteem decreased. Considering the consequent hypotheses, these last two relationships are not in the direction that would be expected. These relationships demonstrate that these particular aspects of body image are illogically related, considering the predicted positive impact of the media literacy education intervention tool. Table 2 outlines the numerical significance of these relationships.

Table 2

Correlations between variables used in analysis

	Self-Esteem		Self-Objectification		Body Satisfaction	
	Self-Objectification	Body Satisfaction	Self-Esteem	Body Satisfaction	Self-Esteem	Self-Objectification
<i>r</i>	-.19*	-.64**	-.19*	.21**	-.64**	.21**
<i>p</i>	.01	.00	.01	.01	.00	.01
<i>r</i> ²	.03	.41	.03	.04	.41	.04

Note. * indicates significant correlation at the .05 level. ** indicates significant correlation at the .01 level. r^2 = effect size. These associations are for the data in the combined file.

Due to the finding of significant relationships among some variables (across both groups), a correlation matrix was conducted with the data file split by group, as well. Results of this analysis indicated significant relationships between variables in both the control and intervention conditions. For those participants in the control condition, there was a significant (but small) positive relationship between the variable of self-objectification and body satisfaction, $r = .27$, $p = .01$, $r^2 = .07$. The relationship between self-objectification and self-esteem was negative, $r = -.26$, $p = .01$, $r^2 = .07$. Notably, this correlation aligns with the researcher's hypotheses. For the variable of self-esteem, a large significant negative correlation was also found for body satisfaction, $r = -.62$, $p = .01$, $r^2 = .38$. For those in the intervention condition, a large, negative correlation was found for the variables of body satisfaction and self-esteem, $r = -.66$, $p = .01$, $r^2 = .44$.

In contrast to the researcher's prediction, there was no significant difference between the control and intervention groups for the variables of self-esteem and body satisfaction. Their level of self-esteem and body satisfaction was not affected, whether or not participants saw the media

literacy education intervention tool. Self-objectification was included as an exploratory variable, as its effects had not been examined with the variable of media exposure. Results of this *t*-test indicated that receiving or not receiving the intervention did not significantly affect participants' level of self-objectification. Although significant correlations were found, the majority of them were not in the direction that would be expected. In sum, the first research question was not strongly supported.

Research question 2. The second research question addressed was: what are participants' perceptions of a media literacy education intervention and of media imagery?

Thematic analysis was used for the qualitative exploration of participants' perceptions of the media literacy education intervention. This process consisted of six phases: (1) becoming familiar with the data; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) producing this final report of the results (Braun & Clarke, 2006). In order to enhance the validity of the themes identified through this method, the researcher processed the data over the course of a few weeks. This lengthier process allowed for the themes to emerge more organically, rather than explicitly deciding on trends in one sitting. In addition, the researcher and supervisor had dialogue about the themes and they were also crosschecked with previous literature (e.g., Choma et al., 2007) to further ensure soundness.

To gain insight on participant perceptions of the media literacy intervention they were first asked, "what are your general reactions/feelings to this video? Please explain." Results of the thematic analysis for this particular question revealed five significant themes. The analysis of the media literacy education intervention demonstrated that it: (1) resulted in a critical analysis of media and/or the standards of beauty portrayed in the media; (2) helped participants feel better about themselves, knowing the process behind the images; (3) contributed to participants feeling

worse about themselves and their desire to look like the models; (4) led to new realizations about the media/ads; and (5) left participants without a significant reaction.

Firstly, the media literacy intervention elicited a theme of critical analysis. This critical analysis was directed toward the media and/or the portrayed standards of beauty and resulted in feelings such as disgust, shock, or surprise. For example, one participant stated:

I think it's sad that natural beauty isn't considered beautiful enough. The woman was naturally pretty but much about her appearance was altered for the ad, setting an unrealistic beauty standard and it's such a shame that this is acceptable as the norm.

In relation, another participant vocalized that the video made her feel “displeased with society and what we consider beauty.” “I feel appalled at the amount of Photoshop that is used on models. It's disgusting how much they alter a model's face; it did not even look like the same woman after they were finished” is another example of a participant's reaction to the media literacy intervention video. Notably, this was the most significantly represented theme in the data for this first question.

Another significant theme found was feeling better. The analysis demonstrated that the video made participants feel better, knowing the process behind the images to which they are so heavily exposed. One participant stated, “It helps a bit to see that those women don't necessarily look the way they do in the ads. I've known that for years but it's nice to see it reinforced.” Likewise, another participant commented that, “the video basically gives you some realization that the people in ads are so Photoshopped that they aren't actually how they look and it makes you feel less judgmental about yourself in general.”

In contrast to this positive effect, the thematic analysis also indicated the theme of feeling worse. It was found that the video contributed to participants feeling worse about themselves and

them still desiring to look like the portrayed models. For example, one participant said, “I had already known that models in ads are Photoshopped like they had shown from the video but even though it’s not an accurate representation, it doesn’t keep me from feeling like I should be thinner and have a prettier face.” Similarly, another participant commented that the video:

Makes me understand that the models in ads are not truthfully portrayed. I know they are saying no one should expect to look as they do, but they are still more thin and attractive than me and the average girl before all work is done, so it still makes me feel bad about my appearance.

Participants’ responses to this first question (assessing their general perceptions of the media literacy intervention) also demonstrated the theme of new realizations. These realizations were in regard to the media and/or ads. A participant who said, “I didn’t realize they changed the model’s features as much as they do. I thought they only made it look like they were skinnier” illustrates this theme. “I had no idea that so much editing went into pictures” and “I never realized all the Photoshop used in ads” are additional participant responses, which exemplify the theme of new realizations.

Lastly, the thematic analysis illustrated a theme of no reaction. Participants reported that they had no reaction to the stimulus because they had seen the media literacy intervention video before and/or knew about the processes used behind the images. For example, a participant commented that she “had seen it before so [she] was not surprised at all.” Also, another said, “I’m not really surprised at the truth behind models. Everything is Photoshopped these days.”

The second question participants were asked was, “did watching the video change the way you think/feel about yourself/others? Please explain.” Five themes were also identified in this aspect of participants’ perceptions of the media literacy intervention video. Seeing the media

literacy intervention: (1) made participants think/feel worse about themselves/others; (2) made participants think/feel better about themselves/others; (3) had no change in the way they viewed themselves/others; (4) changed how participants viewed the portrayed models; and (5) changed how they see ads.

The first theme was thinking/feeling worse. The thematic analysis indicated that viewing the video made participants' think/feel worse about themselves/others. This is exemplified in the following response from a participant:

It does temporarily make me feel unattractive. But I will forget about it and see the good things in myself shortly after. Even though the video is “debunking” model images, it reminded me about how they look and how they look better than me. Even with all the work they do, I am sure they all started off much better looking and thinner than I am.

Another participant stated that the video, “made me remember how my friends (especially dancers) have bodies like that and how I wish I did. It just makes me feel shitty about how I look, especially naked or in a bikini.”

The theme of the video having a negative impact was counterbalanced by the theme of thinking/feeling better. The results illustrated that participants thought/felt better about themselves/others after experiencing the media literacy intervention. For example, one participant said that the video:

Made me realize that everyone is actually so much prettier since we cannot actually compare each other to models since they do not actually exist. It did make me feel better about myself since I now know that it is impossible to be like a model. It is a very powerful video.

Similarly, another participant indicated that the video, “made me feel a little better about myself, knowing that is it impossible to look like the models in ads because of all the editing that takes place.”

The third theme identified for this question was no change. It was found that seeing the media literacy education intervention resulted in no change in participants’ view of themselves/others. Notably, this theme was most significantly prevalent in the data. A participant illustrated this theme by noting that, “I’ve seen this video before, and already know that Photoshop changes the way models appear in ads.” Likewise, another participant stated that, “the video was not very impactful because I am already used to such perspectives in the media so it was not very surprising or thought-provoking.” When asked if the video changed their self-view, another participant’s response was: “No. I’m confident in the way that I look and feel.”

The thematic analysis also indicated the theme of change in viewpoint. In particular, it was found that participants experienced a change in their view of the models (i.e., the fourth theme) and/or in their view of the ads (i.e., the fifth theme). In terms of the models, one participant stated that:

It [the media literacy intervention] changed my mind in that the models are not all good looking and media totally switches the ladies’ looks around. I guess it could help someone that compares themselves to those models, to realize they are comparing to something fake and not real.

Similarly, another respondent indicated that the intervention “altered the way I view models because although they always look perfect in ads, I realize that is not how they look in real life.” A participant who said that the video “changed the ways I viewed advertising and helped me think more critically and be more realistic with body imaging” illustrates participants’ changed

view of ads. In response to being asked if the intervention changed their self-view, another participant said, “No, it just changes the way I look at ads.”

The last question examining participants’ perception of the media literacy intervention was, “did the video have an impact on you in other ways? If yes, please explain.” Another five themes were identified through the thematic analysis and consisted of: (1) a positive impact; (2) a negative attitude towards the media; (3) an awareness/criticism of the unrealistic nature of ads; (4) a negative impact; and (5) no impact in ways other than previously described.

Firstly, an evident theme was named positive impact. For example, one participant said, “it was just a very eye-opening video that should be shown a lot more so everyone can see that they shouldn’t feel pressured to look like a model. This could help a lot of women with their self-esteem.” In relation, another participant stated that the video “made me clarify that my goal is health, not a clothing size. I will focus on aiming to be healthy instead of a size.”

Another theme found was called negative attitude. This adverse attitude was directed towards the media. “I am annoyed that the media makes women strive for unreal body weights and sizes” demonstrates a response aligned with this theme. Another participant described the impact it had on her saying; “It made me feel frustrated and sad that this is the garbage that we, and especially young girls, are constantly bombarded with. Unrealistic, unattainable “people” that we are supposed to be like.”

Thirdly, the thematic analysis demonstrated a theme of critical awareness. It was found that participants were more aware/critical of the unrealistic nature of ads after seeing the media literacy video. For example, when asked about additional impacts of the intervention video, one participant stated, “it made me realize how the conceptions of “beauty” are unachievable, and

that computer generated images should not be our definition and expectation of beauty.”

Similarly, another participant described the impact by saying:

I don't think I'll be wishing to look like a model when I see an especially pretty ad anymore, know how much goes into it, and that if I had a team of makeup and hair people and Photoshop I could probably look the same.

“Now every time I look at an ad in an analytical way I am skeptical of how altered it was during production” is another example of how the media literacy intervention impacted participants.

Although the themes presented so far for this question are positive in nature, another evident theme was entitled negative impact.

I know the video should make me realize that all these models aren't perfect and therefore I shouldn't get down on myself because I don't look like them. But even after seeing the video and how much Photoshop is used on the model, I still look at ads in magazines and on TV and wish I looked like those models. It's the power of social media, forcing a stick standard of beauty on us, yet we are powerless to stop it.

The above quote illustrates an example of a perceived negative impact. Another participant stated that the video, “made me feel worse than I already felt about the way I look.”

The majority of responses to this third question demonstrated the theme of no impact. Most participants reported that the media literacy intervention had no impact on them in ways other than what they had previously stated. Responses to reinforce this theme were usually just simply, “no.”

In line with the hypothesis, the results of the analysis investigating perceptions of the media literacy education intervention tool demonstrated a positive impact on participants. Thematic indications of positive perceptions of the media literacy intervention included a critical

analysis of media and/or the standards of beauty portrayed in the media, participants feeling better about themselves, new realizations about the media/ads, and a change in how participants view the portrayed models/ads. However, negative perceptions were also evident. Participants indicated that viewing the media literacy education intervention tool resulted in negative perceptions about themselves/others and their looks, and also revealed that they did not experience a significant reaction or change in the way they viewed themselves and/or others. In summary, although partially supported, the results indicate that participants' perceptions of the media literacy education intervention tool are more complex than hypothesized.

Descriptive statistics were used to address how all participants reacted to media imagery. These attitudinal reactions were assessed by the MAQ (Irving et al., 1998). Examining the data for high mean values indicated the most prevalent media attitudes. "Models in ads are beautiful," $M = 3.99$ ($SD = 0.93$), "models in ads have perfect bodies," $M = 3.47$ ($SD = 1.25$), and "I would like to have a body like the models in ads," $M = 3.80$ ($SD = 1.22$) were all considered dominant media attitudes. Other central media attitudes included, "I would like to look like the models in ads," $M = 3.60$ ($SD = 1.28$), "being thin makes you more attractive," $M = 3.35$ ($SD = 1.28$), and "I want to lose some weight in the next 6 months," $M = 3.56$ ($SD = 1.50$).

Descriptive statistics for the split file (by group) were also conducted. The analysis demonstrated the same pattern of prevalent media attitudes for the combined and split file; there was no difference in attitudes between those who saw the media literacy intervention video and those who did not. These prevalent media attitudes indicate that women are vulnerable to accepting the media's pressures, to abide by the thin ideal, and the unrealistic standard of beauty, regardless of an attempt to counterbalance these effects. These findings do not support the hypothesis of a positive attitudinal impact of the media literacy education intervention tool.

Research question 3. The third research question investigated was: how are participants' perceptions of media imagery differentially affected by a media literacy intervention, compared to those participants who did not receive the intervention?

The analysis for this research question was an independent *t*-test, in order to examine response differences in those who received and those who did not receive the intervention. There was homogeneity of variance for the *t*-test, as assessed by Levene's Test for Equality of Variances. In line with the prediction, on average, participants in the control condition had higher scores on the measure of media attitudes (i.e., higher perceived realism, similarity, desirability, identification, expectations, and dieting), $M = 63.60$ ($SD = 14.12$), than those who viewed the media literacy education intervention tool, $M = 62.00$ ($SD = 14.37$). However, this difference was not significant, $t(180) = 0.75$, $p = .45$, and the effect size was also minute, $d = 0.11$. Based on this information, the third research question was not strongly supported.

CHAPTER FIVE: DISCUSSION

This chapter will review the foundational elements (e.g., purpose, theoretical framework, significance) of the current study. Next a discussion of the research findings will occur per research question. Limitations of the present study will then be acknowledged. Subsequently, implications of the results in relation to objectification theory, as well as to the process of social comparison will then be discussed. Clinical and educational implications will also be explored, as will avenues of future research. The chapter will end with a conclusion of the research findings.

Foundational Elements

Investigating how a media literacy education intervention tool affects women's self-objectification, self-esteem, and body satisfaction was the first purpose of the current study. Secondly, participants' perceptions of media literacy education interventions and of media imagery were explored. Objectification theory was used as a framework for understanding media imagery and its effects on aspects of women's body image. Research has supported objectification theory by demonstrating that media images intensify self-objectification and are related to body dissatisfaction and other negative aspects of body image (Calogero et al., 2005; Harper & Tiggemann, 2008). Exposure to mass media coupled with its resulting harmful effects (e.g., negative body image), are a significant area of research as these experiences are associated with disordered eating (Derenne & Beresin, 2006). In order to improve the well-being of current and future Canadian young women, interventions (e.g., media literacy) to reduce the impact of media exposure are a vital area of exploration.

Discussion of Findings

Research question 1. The first research question posed was: how are participants' self-esteem, body satisfaction, and self-objectification affected by receiving or not receiving the media literacy education intervention?

The researcher predicted that viewing the media literacy education intervention tool would result in increased self-esteem and body satisfaction. Self-objectification was included as an exploratory variable as its outcome had not been specifically tested in relation to a media literacy intervention, coupled with media exposure. In contrast to the researcher's prediction, there was no significant difference between the control and intervention groups for the variables of self-esteem and body satisfaction. Participants' levels of self-esteem and body satisfaction were not affected, whether or not they were exposed to the media literacy education intervention tool. These results diverge from the research conducted by Chambers and Alexander (2007), Halliwell et al.'s (2011), Povasac et al. (2001), Yamamiya et al. (2005), for example, who all found positive differential effects of a media literacy intervention on aspects of women's body image. However, the finding of no difference between conditions is in line with Irving and Berel's (2001) work, who found this same pattern of outcomes. Results also demonstrated that receiving or not receiving the intervention did not significantly affect participants' level of self-objectification. As this was an exploratory analysis, its outcome cannot be compared to previous research; however, implications of this finding will be discussed further.

Pearson correlations were calculated for the data in the combined file and the split file form. The results for the combined file indicated significant relationships between the variables of self-esteem, self-objectification, and body satisfaction. As self-esteem increased, self-objectification decreased. Although self-objectification was included as an exploratory variable,

given the researcher's subsequent predictions, this relationship could be expected. The relationships found for the other variables were not in the direction that would align with the current predictions. Results of the analysis on the split file indicated significant relationships between variables in both the control and intervention conditions. For those participants in the control condition, there were relationships between the variables of self-objectification, body satisfaction, and self-esteem. The negative correlation found for the variables of self-esteem and self-objectification (in the control condition) aligns with the researcher's hypotheses. The other relationship found (involving body satisfaction and self-esteem) did not make sense, considering the other research predictions. To the researcher's knowledge, these specific combinations of variables have not been previously tested. Although significant correlations were found, the majority of them were not in the direction that would be expected. In sum, the first research question (based on the cumulative evidence of *t*-tests and correlations) was not empirically supported.

The lack of pragmatic evidence indicates that the chosen media literacy education intervention tool may not be sensitive enough to detect significant differences between the two groups, for example. The relationships between the chosen dependent variables could also indicate that body image as a macro level construct (consisting of various aspects), may be more complex to intervene than previously thought. In particular, the current study further implies that there are inconsistencies in how a media literacy intervention affects aspects of women's body image. This statement aligns with the previous research on media imagery and media literacy effects (e.g., Choma et al., 2007; Irving & Berel, 2001). The lack of significant results (paired with the negative perceptual reactions) indicates that future research would be beneficial, in

order to clarify how a media literacy intervention specifically affects features of women's body image.

Research question 2. The second research question addressed was: what are participants' perceptions of a media literacy education intervention and of media imagery?

The corresponding hypothesis for this research question was that participants would positively perceive the media literacy education intervention and media imagery. The results indicated that participants' perceptions of the media literacy education intervention tool were more multifaceted than this initial prediction. In line with the prediction, thematic indications of positive perceptions included a critical analysis of the media and/or the standards of beauty portrayed in the media, participants feeling better about themselves, new realizations about the media/ads, and a change in how participants view the portrayed models/ads. In contrast, the thematic analysis also demonstrated that viewing the media literacy education intervention tool resulted in negative perceptions about self and their looks, and caused no significant reactions or change to the way they viewed themselves and/or others. While the original hypothesis of a positive perceptual reaction was partially supported, the additional perceptions expressed are also in line with previous research. In particular, Choma et al. (2007) found themes of critical thinking, positive emotions, no change, and negative emotions, when examining participant perceptions of a media literacy intervention.

A quantitative measure of participants' reactions to media imagery was included as a way to examine this hypothesis, as well. A descriptive investigation of prevalent attitudinal reactions indicated that women (in both the intervention and control condition) are vulnerable to accepting the media's pressures, to abide by the thin ideal, and the unrealistic standard of beauty, regardless of an attempt to counterbalance these effects. Therefore, these results do not provide

support for the prediction of a positive attitudinal reaction to the media literacy intervention. These resulting attitudes are parallel to Irving et al.'s (1998) study, which also used the MAQ to examine a media literacy program for high school students. The present results, combined with previous research, indicate that media imagery has a powerful impact on the development of perceptual opinions, which likely become internalized and contribute to the negative affect on women's well being.

Research question 3. The third research question investigated was: how are participants' perceptions of media imagery differentially affected by a media literacy intervention, compared to those participants who did not receive the intervention?

Investigating the differential affect of participant perceptions, it was predicted that those who were randomly assigned to view the media literacy education intervention would report increased perceptions of media imagery skepticism, compared to those who did not receive the media literacy education intervention tool. The results indicated that although viewing the intervention positively impacted participants' media attitudes (as predicted), the lack of statistical significance (and the minimal effect size) between conditions indicated that the finding does not support the hypothesis. These results are in line with Irving et al.'s (1998) previous work, which also found no difference between a media literacy intervention condition and a control condition, using the MAQ to assess media attitudes. These combined results suggest that media attitudes are an additional variable that are differentially affected by a media literacy intervention.

Limitations

Limitations of the current study may partially account for the results found. The structure of the questionnaire could have contributed to the diverse perceptual themes identified during data analysis. For example, those who were randomly assigned to view the media literacy

education intervention tool did not answer the questions assessing their perceptions of the video until the end of the questionnaire. Although the questionnaire in its entirety took only 20 minutes of participants' time, by the time they viewed the video and completed the rest of the questionnaire, their true perceptions may have been distorted by answering the other questionnaire items. A potential way that this could have been addressed during data collection would have been to monitor participant responses to the perceptual questions. The structure of the survey could have been altered (e.g., placing the perceptual questions at the beginning of the questionnaire) to gain a truer representation of opinions. Also, the media literacy education intervention was sequentially placed prior to participants viewing the media images. Perhaps seeing the media images before being prompted about their perceptual reactions to the media literacy intervention interfered with their true perceptions and resulted in the portrayal of muddled opinions.

The lack of significant results may also be reflected in the choice of questionnaire methodology, in general, to assess the outlined research questions. In particular, participants could have experienced a level of reactance in completing the self-report measures. In the realm of social sciences, reactance refers to a perceived threat to an individual's freedom to make choices. It elicits a motivational state consisting of negative thoughts, anger, and a drive to restore autonomy (Brehm, 1966). Based on this analysis, participants may have felt restricted by having to complete multiple, self-report measures. This could have resulted in an elicitation of reactance and thus, contributed to the lack of significance of these measures. A way to address this possibility would have been to include more qualitative measures, which leave the opportunity for open, unrestricted opinions.

Choosing the Dove *Evolution* video may have also served as a limitation of the current study. It is a widely popular video on YouTube (almost 18 million views). Although its popularity was one of the reasons the researcher chose it as the media literacy education intervention, the video's effects may have been minimized, due to many participants expressing that they had already seen the video. This previous exposure could have lessened the impact of the stimulus and resulted in a neutral or negative perception. Similar to the limitation discussed above, this issue could have been addressed by monitoring participants' responses to the questions. If detected early in data collection, the intervention could have been changed and the old responses would have been removed. Also, the researcher could have asked if participants had previously viewed the intervention. Analyses could have then been conducted by those who have, versus those who haven't previously seen the video. Additionally, the video was only one minute and 16 seconds long. Perhaps the brevity of the intervention resulted in insufficient time to elicit significant relief effects on the outlined aspects of body image. The study also assessed participant ethnicity and the results indicated that a diverse sample of women completed the survey. However, the video portrays only one woman, who is Caucasian. Perhaps many of the women who identified themselves as ethnicities other than Caucasian could not identify with the model in the video. This potential lack of connection could have contributed to the video's deficiency in eliciting the predicted perceptual responses from participants. A potential way to examine this possibility would have been to run the analyses by restricting the sample to include only those participants who identified themselves as Caucasian. This could have provided information about how this particular ethnicity identified with the model, who was of the same descent.

Another factor that could have limited the results of the current study is the choice of population. Based on a dominant theme in the literature (e.g., Chambers & Alexander, 2007; Choma et al., 2007; Coughlin & Kalodner, 2006; Harper & Tiggemann, 2007), the researcher chose to have female undergraduates serve as the main participants. However, perhaps this population was too broad and diverse to elicit specific effects. In other words, the natural variation (e.g., age, level/amount of completed university, interpersonal interests) between the groups could have affected participants' level of sensitivity to the intervention. To exemplify this possibility, a study by Fernandez and Vandereycken (1994) found that individuals with anorexia nervosa demonstrated fewer perceptual distortions after a single video exposure. This finding highlights the prospect that specific populations (e.g., those suffering from extreme body image disturbance) would be more sensitive to intervention attempts. Perhaps their increased attention to their bodies and body image may have made them more susceptible and vulnerable to the impacts of such an intervention as the video used in the current study. Other possible populations that could have elicited a stronger intervention response include dancers and athletes, for example, due to their similar focus on the body.

Another possible limitation of the current study is the use of some of the chosen scales. For example, the SOQ has demonstrated adequate psychometric properties, (e.g., internal consistency scores of .7 or higher, correlations with other measures that assess the same/similar construct (i.e., concurrent validity), further evidence of validity via psychometric validation studies [Sattler, 2008]) but the logistics of how to complete the measure may have left some participants confused. Additionally, the researcher received a few emails regarding how to properly complete the items in this measure. An examination of participant responses on this measure provided support for this prediction. Common mistakes included assigning the same

rank to multiple items, ranking attributes at only the anchors (i.e., 1 or 10), and leaving attributes unranked. Due to the inability to properly calculate a total score, incomplete responses on this measure were not included in data analysis. However, the amount of incompletes (n=5) is seen to not significantly affect the validity of the results, as it is less than 2.2% of the total respondents (Schafer, 1999).

In relation, some of the chosen scales (e.g., the MAQ, the perceptual questions) are lacking thorough psychometric properties. Thorough psychometric properties refer to strong internal consistency (reliability) scores (i.e., an alpha of .7 or higher) and evidence of validity (e.g., construct and content), as determined by multiple administrations of a test and/or psychometric validation studies (Sattler, 2008). However, this particular scale was chosen due to the lack of inventory of scales measuring the quantitative construct of media attitudes. Both of these concerns point toward the need to further develop existing measures related to body image and media attitudes, as well as to create and develop new, standardized measures. Additionally, the use of the chosen scales could have also contributed to the lack of statistical findings for some of the explored relationships (e.g., self-esteem, body satisfaction, self-objectification). The illogical relationships found suggest that the measures may not have accurately measured the construct of interest. It is recommended that future research take the results of these scales into consideration when developing additional research on media imagery effects and body image.

Statistical Significance. The above limitations may have also contributed to the lack of statistical significance found. However, there are a number of specific methodological factors that affect statistical significance and that, consequently, could have affected the results found in the present study. For example, choosing a design that required an independent samples (versus a dependent samples) test could have affected the level of statistical significance. Specifically, a

dependent samples test assesses the correlation between samples, which reduces the standard error, and in turn increases the test statistic (Field, 2009). A design utilizing independent samples could have investigated the differential affects of two different media literacy education intervention tools (i.e., two different independent variables, with two groups of participants).

Multiple (i.e., 3) independent *t*-tests were conducted in order to address the first research question and corresponding hypothesis. Due to the usage of multiple *t*-tests, the alpha needed to be restricted (to .02), in order to protect against the likelihood of making a Type I error. However, when the alpha is smaller, power is reduced (Ray, 2009). Increased power is related to Type II errors: believing there is no effect (e.g., difference) in the populations, when there actually is an effect (Ray, 2009). The lack of significant findings, coupled with the necessary alpha restriction, then, indicates that a Type II error may have occurred. This speculation also stems from Field's (2009) account, stating that as the probability of making a Type I error decreases, the probability of making a Type II error increases. Lowering the probability of accepting an effect as true (i.e. making alpha smaller) increases the probability of rejecting an effect that does truly exist, due to the stringent cut off level applied for a genuine effect. Therefore, restricting the alpha (as an effort to decrease the probability of making a Type I error) may have affected the level of power in the current study. This potential lack of power is represented by the small test statistics produced in the data analysis, and thus, indicates the possibility of a Type II error contributing to these insignificant results. Factors that define power include effect size, alpha level, and number of participants (Ray, 2009). Although the current study employed a large sample size (valid $N = 179$), the extremely small effect sizes (e.g., Cohen's *d*) and restricted alpha (e.g., $\alpha = .02$) provide additional support for incorrectly failing to reject the null hypothesis.

Theoretical Implications

Objectification theory serves as a framework for understanding the psychological and experiential consequences of being female in a society that constantly sexually objectifies the female body (Fredrickson & Roberts, 1997). Their theory posits that the accumulation of these experiences over time may help to explain a variety of mental health risks that appear to affect women unilaterally (e.g., depression, sexual dysfunction, eating disorders). Fredrickson and Roberts (1997) suggest that the process of compromised mental health begins when aspects of a women's body are separated from her as a person. This process is known as sexual objectification. In particular, one way that sexual objectification is achieved is by an objectifying gaze. The authors comment that this gaze is infused in visual media, which highlights women's bodies and body parts and essentially force the viewer to adopt an implicit sexualizing gaze. Being continually objectified naturally leads women to adopt this same view of themselves and treating themselves as objects to be looked at and evaluated, a process coined as self-objectification (Fredrickson & Roberts, 1997). An external consequence of self-objectification is self-consciousness, as portrayed by habitual body monitoring. This habitual body monitoring may be a strategy that women use to help them determine how others will treat them. It can affect women's quality of life and even disrupt flow of consciousness (Fredrickson & Roberts, 1997).

The current study addressed a gap in the literature that directly examined media exposure effects and perceptions of media literacy education interventions through the lens of objectification theory. From the perspective of objectification theory, the results of the current study indicate that young women may be vulnerable to sexual and self-objectification, based on viewing media material. This inference stems from a descriptive investigation of prevalent

attitudinal reactions to media imagery, which indicated that women are susceptible to accepting the media's pressures, to abide by the thin ideal, and the unrealistic standard of beauty, regardless of an attempt to counterbalance these effects. For example, dominant perceptual attitudes included "I would like to have a body like the models in the ads," "being thin makes you more attractive," and "models in ads are beautiful." These attitudinal reactions demonstrate a strong value of attractiveness, beauty, and the sexualized body. Consequently, these ideals could be seen as related to negative outcomes, such as a level of internalization (i.e., self-objectification). The results also demonstrated that the media literacy education intervention tool was both positively and negatively perceived by participants. From objectification theory's view, these mixed results may be due to a strong internalization of media ideals and beauty standards. This resilient internalization may lead one to conclude that objectification (and its resulting effects on aspects of body image) requires more robust and direct approaches to alleviate.

Also, the absence of a significant difference between the intervention and control group demonstrates that self-objectification could be a construct which requires more structured and controlled intervention approaches to alleviate. This speculation could be due to the vast concentration of media images in a variety of settings, as objectification theory suggests. Since media imagery permeates so much of society, it may be harder than originally thought to offset the effects (e.g., self-objectification) of these images. Objectification theory also acknowledges both relatively stable individual differences across women, as well as situation specific effects in the experiences of objectification and its consequences. Furthermore, an observer's perspective on the body can become internalized to varying degrees; therefore, the framework conceptualizes self-objectification as an individual-difference variable (Fredrickson & Roberts, 1997). Perhaps these differential effects of objectification are reflected in the results of the current study. It may

be that the methodologies of the current study (e.g., the chosen media literacy education intervention tool and measurement scales) were not sensitive enough to detect the individual differences between women, nor able to identify the degrees of self-objectification present.

The negative correlation found for the variables of self-esteem and self-objectification aligns with the researcher's hypotheses. In other words, as self-esteem increased, self-objectification decreased. This finding also makes sense, when considered within the framework of objectification theory. Fredrickson and Roberts (1997) acknowledge psychological consequences of objectification. These include shame, anxiety, minimal peak motivational states, and a lack of awareness of internal bodily states. Considering the results of the present study, an increase in self-esteem and a decrease of self-objectification could be seen to represent a subsequent decrease of shame and anxiety, as they can be viewed as related constructs. A reduction of these proposed psychological consequences of objectification indicates that self-esteem and its associated constructs may be useful for further research examining self-objectification, media imagery, and media literacy, from the framework of objectification theory.

Social contexts draw awareness to an observer's perspectives on a women's body and will partially determine the extent of the negative experiences (e.g., self-objectification, increased body dissatisfaction). Certain environments (those that are public, mixed gendered, and unstructured) seem to be contexts where consequences of objectification are most evident (Fredrickson & Roberts, 1997). Perhaps the strict, private, unaccompanied environment (e.g., at their home or in comfortable space of their choice) in which participants completed the online study did not significantly activate the awareness of an observer's perspective. These factors, therefore, could have contributed to the lack of difference found for the variable of self-

objectification. If self-objectification was not strongly elicited by these environmental factors, the potential intervention effects could have been muted.

Implications of Social Comparison

Social comparison has been linked to negative effects of media exposure as a psychological process, which aids in the translation of media content into negative results (e.g., Tiggemann, 2002; Tiggemann & McGill, 2004). The activation process of social comparison is instant and can be elicited both by salient features in a target, as well as by personal motivation that women possess for viewing such images (Tiggemann & McGill, 2004). Social comparison, in particular, is a mechanism by which exposure stimulates damaging outcomes.

Due to the study's focus on participant outcome effects and not processes, which impact these outcomes, social comparison was not directly measured. However, the present study demonstrates that the process of social comparison could have been evident as a contributing factor to the results. This speculation stems from the previous research with social comparison, media exposure, and media literacy, as well as an analysis of the current results. For example, Povasac et al. (2001) discuss that their tested media literacy interventions were likely successful because they allowed women to realize that models are dissimilar to themselves and, therefore, that they are inappropriate targets for social comparison. In contrast to these findings, the results of the current study suggest that the media literacy education intervention tool did not allow women to conceptualize that models in ads are inaccurate goals for comparison. This possibility is also reflected in women's perceptual responses to the media literacy education intervention tool. Some women reported that a comparison of themselves to the model in the video made them feel badly about themselves and, in turn, made them want to look like the model. A potential explanation of these perceptual reactions is that, perhaps, the brevity and the warped

time portrayed in the intervention made it too quick for the participants to process. Thus, participants may not have been able to determine that the model was not an accurate social comparison.

Also, Fredrickson and Roberts (1997) note that young women are most susceptible to media imagery's damaging effects. As the present study's sample consisted mainly of females of this age, perhaps due to their level of susceptibility, and limited experience and awareness with determining an inappropriate target, they were unable to dissociate from social comparison processes.

The results could also demonstrate that the large presence of media material in so many forms (e.g., social media, television, movies, magazines) and in so many aspects of daily living (e.g., at the gym, grocery store, doctors office) may have made it especially hard for women to determine that the models portrayed in these materials are an unrealistic representation of reality. Consequently, determining that they are inappropriate targets for social comparison may have been an overwhelming and confusing task due to the intense permeation of media material that one encounters daily.

Clinical and Educational Implications

Despite the lack of significant, differential effects found for the media literacy intervention, implications for clinical use can still be inferred. The examination of participants' perceptual responses to the media literacy intervention indicated that it did have a positive impact on their feelings about themselves. Participants also reported that it increased their level of critical analysis about the media and that it changed their view of ads and of the models. This information demonstrates that the *Evolution* video as a media literacy education intervention tool may be a useful tool for counsellors to use with their clients in sessions. Cognitive Behavioural

Therapy (CBT) is a form of counselling intervention based on the premise that transforming maladaptive cognitions can improve emotional stress and behavioural problems (Dozois & Beck, 2011). Clinicians who work from this theoretical orientation may find the use of such media literacy tools impactful. For example, the results of the present research show that this intervention tool may be most useful when working with clients to help them develop more critical thoughts of the media and to educate them about the unrealistic nature of ads and the portrayed models. The current study examined the use of the media literacy education intervention tool with a general population of young women. Consequently, the results cannot be accurately generalized to a counselling population suffering from a particular presenting issue (e.g., disordered eating, self-esteem and/or body image issues). However, previous studies have shown that a single exposure to a media literacy video was effective in providing relief to eating disorder patients (e.g., Fernandez & Vandereycken, 1994). Based on the perceptual responses to this media literacy education intervention tool, coupled with previous research, counsellors may find using a media literacy education intervention tool, such as the *Evolution* video, beneficial for their clients. As such, the motive behind advocating for the use of media literacy education intervention tools in a counselling setting is to improve the well-being of young Canadian women, by attempting to reduce the impact of media exposure.

The current and previous research indicates that media imagery has a negative impact on aspects of young women's body image. The results also indicate that the use of a short, single exposure media literacy education intervention tool may not be enough to significantly mitigate these effects. Previous research has addressed the use of media literacy in the classroom, as a means to reduce adversity and increase critical thinking and media awareness. Researchers have found that media literacy interventions are a useful prevention strategy both at the program and

specific tool level (e.g., Choma et al., 2007; Halliwell et al., 2011; Posavac et al., 2001, Stice & Ragan, 2002). The lack of significant effects (and the negative perceptual responses) found demonstrates that more needs to be done. It is necessary for researchers and educators to continue to explore and implement various media literacy programs and tools, as a way to make young women more aware of the range of psychological effects that media images and objectifying treatment can have on them. The sum of this information, along with the current study's findings, points toward the need to continually address and advocate for the sustained presence of media literacy (in its variety of forms) in the classroom. Connected with media literacy interventions and programs, the results provide support for required education about healthy body image and self-esteem, as a potential way to further reinforce positive media viewing behaviour and to resist its negative effects. These classroom interventions could help to reduce the vast number of young Canadians who are unhappy with their body image and consequently, assist in improving their wellness.

Future Directions

Objectification theory proposes that objectification does not affect all women equally. Fredrickson and Roberts (1997) comment that combinations of class, age, ethnicity, sexuality, personal histories, and physical attributes produce differences in the experience of objectification. Future research could explore how groupings of demographics are affected by objectification. This recommendation is due to objectification theory's predictions, as well as the use of a general (rather than precise) population in the current study. Examining specific demographic factors, such as the ones Fredrickson and Roberts (1997) have outlined, could reveal information about how best to intervene with these more specific populations.

Additionally, information from diverse groups of women may lead to discovering other forms of psychological and experiential oppressions that specific groups are faced with.

The current study examined only a select few variables that contribute to the broad construct of body image (e.g., self-esteem, body satisfaction, self-objectification). Future research could expand on this by investigating how previously untested or overlooked features of body image are affected by media imagery and a media literacy education intervention tool. These variables could include, for example, leadership, self-talk, spirituality, and/or kinesthetic perception. This research could provide additional insight on the particular aspects of body image that are most affected by both negative media material and a positive media literacy education intervention. This proposed avenue of research is based on the lack of significant findings and relationships in the present study using the tested variables.

Future research is recommended for the construct of self-objectification, as specially measured by the SOQ. This suggestion stems from the lack of difference for the exploratory variable of self-objectification. In relation, support for this recommendation comes from participants' finding the SOQ difficult and confusing to answer. Based on these findings, it could be that self-objectification is a construct, which requires stronger forms of interventions to mitigate the effects of media exposure. Self-objectification may be a deeply rooted consequence that needs specifically targeted interventions. Conversely, the SOQ may be a measure that does not reliably tap into the construct. In sum, it is recommended that future research re-examine self-objectification, media exposure, and media literacy. For example, this could include a replication of the current study's variables. From an alternate angle, the findings could also be used to extend the current research by examining more specific ways to resist objectification (e.g., cognitive restructuring). Scale development to assess self-objectification could be another

area of future exploration. Each of these possible investigations could help to clarify how self-objectification works as a construct (paired with media imagery and media literacy interventions) and how it could potentially be more accurately measured and intervened.

Future research utilizing other media literacy education intervention tools may be beneficial. This speculation stems from the lack of significant differences between the intervention and control conditions in the current study. For example, a recent video by Always titled *#LikeAGirl* has recently gained popularity in social media. The video explores how using the term “like a girl” can affect people’s perceptions of women. It shows women, men, and young boys expressing their perception of what it means to run, punch, and fight like a girl. Next, young girls are also asked to demonstrate these same perceptions. In contrast to the adults, the adolescent girls physically portray a strong, bold, and superior sense of what it means to be and act like a girl. The video exemplifies how the use of this term in social interactions and media can affect and shape young women’s self-esteem and confidence. It advocates for the use of the term “like a girl” to represent positivity and foster confidence, rather than inferiority and limitations.

In relation, past research has demonstrated that many different forms of media literacy interventions have been useful in mitigating media imagery’s negative effects (e.g., Chambers & Alexander 2007). Future research could further explore this avenue by extending the previous research and investigating songs as a media literacy intervention tool. For example, the early 2000’s chart topping *Beautiful* by Christina Aguilera, or the newly popular *All About That Bass* by Megan Trainor could be used as experimental stimuli. Both of the exemplified songs provide women and girls (in particular) with inspirational and motivational messages about themselves,

their bodies, and even the media. Information from these future studies could be used as further evidence of the usefulness and diversity of media literacy education interventions.

The current study did not include males as a point of analysis due to feasibility and the breadth of the topic. However, future research could also consider objectification theory and its potential applicability to males. For women, self-objectification (as outlined by Fredrickson & Roberts, 1997) refers to a partial connection with media imagery and consequently, internalization of the thin ideal. It is believed that the concept of self-objectification could apply to males as well, however, they do not internalize the thin ideal, but rather, the opposite (i.e., a strong, muscular appearance) (e.g., Agliata & Tantleff-Dunn, 2004; Cohane & Pope, Jr., 2000). Sexual objectification is another construct of objectification theory that could also be applied to males and thus, serve as an avenue for future research. Although not formerly investigated in the literature, it is assumed that males also feel pressure of being sexually appraised by the female gaze. Objectification theory outlines mental health risks and experiences that are unique to women (e.g., eating disorders, sexual dysfunction, depression). Future research with a male version of the theory could examine whether these risks and experiences are similar, or different, than females. A male version of objectification theory could be used to inform males' experiences of objectification and media imagery and to determine best suited interventions for this gender.

It is also recommended that future research examine body image, media imagery effects, and media literacy interventions from the perspective of qualitative research. This suggestion stems from the significant findings of the qualitative aspect of the current study. The researcher believes that the qualitative piece generated rich, comprehensive, and detailed information about how participants' were affected by the media literacy intervention tool. In contrast, the

quantitative measures may have been too general to capture the more specific and differential experiences with media literacy. It is believed that qualitative research is a method, which allows for a deep level of analysis and full understandings of experiences. Therefore, this may provide evidence for future qualitative exploration in this research area. A similar designed study could be used for a qualitative examination, for example. Participants could speak to the impact of viewing the media imagery, and could respond to how their self-esteem, body satisfaction, media attitudes, and self-objectification were particularly impacted by viewing this material. The results may lead to more beneficial information, in terms of what aspects of body image are most affected by media imagery and thus, better inform meaningful intervention implementation, for example.

Conclusion

Investigating how a media literacy education intervention tool affects women's self-objectification, self-esteem, and body satisfaction was the first purpose of the current study. Secondly, participants' perceptions of media literacy education interventions and of media imagery were explored. Objectification theory was used as a framework for understanding media imagery and its effects on aspects of women's body image. Notably, the current study addressed a gap in the literature that directly examined media exposure and perceptions of media literacy education interventions through the lens of objectification theory. This investigation was accomplished in a Western Canadian sample of young women.

The results indicated that viewing the media literacy education intervention tool did not significantly affect participants' self-esteem, self-objectification, body satisfaction, and media attitudes, compared to those who did not view the intervention. However, participants' perceptions provided some positive evidence for the meaningful use of media literacy education intervention tools, such as *Evolution*. Additionally, the majority of participants' attitudinal

reactions to viewing media imagery demonstrated that this material had a negative effect on women's perceptions of themselves, when compared to the models in the media images. These adverse effects, coupled with the lack of significant differences between the control and intervention group adds to the existing literature on media literacy and media exposure effects. They provide evidence for future research on this topic, in order to clarify how a media literacy intervention affects these measured aspects of body image. Specifically, the current study further implies that there are inconsistencies in how a media literacy intervention affects aspects of women's body image. This statement aligns with the previous research on media imagery and media literacy effects. In considering objectification theory, the study also expands the literature by demonstrating that a media literacy education intervention tool is both positively and negatively perceived, after viewing idealistic media imagery. To the researchers knowledge, these results have not been previously examined. From the perspective of objectification theory, these results would indicate that sexual and self-objectification were present due to viewing media imagery. The results suggest that although the media literacy education intervention tool was positively perceived, its negative views and the insignificant statistics may lead one to conclude that objectification (and its resulting effects on aspects of body image) may require more robust and direct approaches to alleviate.

Limitations of the current study, including the chosen methodology and the potential for a Type II error, may have contributed to the deficient statistical significance and questionable relationships. Further research in the area of media literacy and media imagery is warranted in order to expand our knowledge in the area. Additional clarification on the particular types and forms of media literacy education tools, which can be used to measurably reduce the negative impact of media material on women's body image, would be beneficial.

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APPENDICIES

Appendix A

Body Image States Scale

For each of the items below, check the box beside the one statement that best describes how you feel **RIGHT NOW AT THIS VERY MOMENT**. Read the items carefully to be sure the statement you choose accurately and honestly describes how you feel right now.

1. Right now I feel . . .

Extremely dissatisfied with my physical appearance

Mostly dissatisfied with my physical appearance

Moderately dissatisfied with my physical appearance

Slightly dissatisfied with my physical appearance

Neither dissatisfied nor satisfied with my physical appearance

Slightly satisfied with my physical appearance

Moderately satisfied with my physical appearance

Mostly satisfied with my physical appearance

Extremely satisfied with my physical appearance

2. Right now I feel . . .

Extremely satisfied with my body size and shape

Mostly satisfied with my body size and shape

Moderately satisfied with my body size and shape

Slightly satisfied with my body size and shape

Neither dissatisfied nor satisfied with my body size and shape

Slightly dissatisfied with my body size and shape

Moderately dissatisfied with my body size and shape

Mostly dissatisfied with my body size and shape

Extremely dissatisfied with my body size and shape

3. Right now I feel . . .

Extremely dissatisfied with my weight

Mostly dissatisfied with my weight

Moderately dissatisfied with my weight

Slightly dissatisfied with my weight

Neither dissatisfied nor satisfied with my weight

Slightly satisfied with my weight

Moderately satisfied with my weight

Mostly satisfied with my weight

Extremely satisfied with my weight

4. Right now I feel . . .

Extremely physically *attractive*

Very physically *attractive*

Moderately physically *attractive*

Slightly physically *attractive*

Neither attractive nor unattractive

Slightly physically *unattractive*

Moderately physically *unattractive*

Very physically *unattractive*

Extremely physically *unattractive*

5. Right now I feel . . .

A great deal worse about my looks than I usually feel

Much worse about my looks than I usually feel

Somewhat worse about my looks than I usually feel

Just slightly worse about my looks than I usually feel

About the same about my looks as usual

Just slightly better about my looks than I usually feel

Somewhat better about my looks than I usually feel

Much better about my looks than I usually feel

A great deal better about my looks than I usually feel

6. Right now I feel that I look . . .

A great deal better than the average person looks

Much better than the average person looks

Somewhat better than the average person looks

Just slightly better than the average person looks

About the same as the average person looks

Just slightly worse than the average person looks

Somewhat worse than the average person looks

Much worse than the average person looks

A great deal worse than the average person looks

(Cash, Fleming, Alindogan, Steadman, Whitehead, 2002)

Appendix B

The Self-Objectification Questionnaire

We are interested in how people think about their bodies. The questions below identify 10 different body attributes. We would like you to **rank order** these body attributes from that which has the *greatest impact* on your physical self-concept (rank this a "9"), to that which has the *least impact* on your physical self-concept (rank this a "0").

Note: It does not matter *how* you describe yourself in terms of each attribute. For example, fitness level can have a great impact on your physical self-concept regardless of whether you consider yourself to be physically fit, not physically fit, or any level in between.

Please first consider all attributes simultaneously, and record your rank ordering by writing the ranks in the rightmost column.

IMPORTANT: *Do Not Assign The Same Rank To More Than One Attribute!*

When considering your *physical self-concept* . . .

9 = greatest impact

8 = next greatest impact

1 = next to least impact

0 = least impact

1. What rank do you assign to *physical coordination*?

0 1 2 3 4 5 6 7 8 9

2. What rank do you assign to *health*?

0 1 2 3 4 5 6 7 8 9

3. What rank do you assign to *weight*?

0 1 2 3 4 5 6 7 8 9

4. What rank do you assign to *strength*?

0 1 2 3 4 5 6 7 8 9

5. What rank do you assign to *sex appeal*?

0 1 2 3 4 5 6 7 8 9

6. What rank do you assign to *physical attractiveness*?

0 1 2 3 4 5 6 7 8 9

7. What rank do you assign to *energy level (e.g., stamina)*?

0 1 2 3 4 5 6 7 8 9

8. What rank do you assign to *firm/sculpted muscles*?

0 1 2 3 4 5 6 7 8 9

9. What rank do you assign to *physical fitness level*?

0 1 2 3 4 5 6 7 8 9

10. What rank do you assign to *measurements (e.g., chest, waist, hips)*?

0 1 2 3 4 5 6 7 8 9

(Noll & Fredrickson, 1998)

Appendix C

Rosenberg Self-Esteem Scale

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

- | | | | | |
|---|----|---|---|----|
| 1. On the whole, I am satisfied with myself | SA | A | D | SD |
| 2. At times, I think I am no good at all | SA | A | D | SD |
| 3. I feel that I have a number of good qualities | SA | A | D | SD |
| 4. I am able to do things as well as most other people | SA | A | D | SD |
| 5. I feel that I do not have much to be proud of | SA | A | D | SD |
| 6. I certainly feel useless at times | SA | A | D | SD |
| 7. I feel that I am a person of worth, at least on an equal plane with others | | | | |
| | SD | A | D | SD |
| 8. I wish I could have more respect for myself | SD | A | D | SD |
| 9. All in all, I am inclined to feel that I am a failure | SD | A | D | SD |
| 10. I take a positive attitude to myself | SD | A | D | SD |

(Rosenberg, 1965)

Appendix D

Media Attitudes Questionnaire

Instructions: Please indicate the extent to which you agree/disagree with the following statements:

Completely Disagree	Somewhat Disagree	Neither agree nor Disagree	Somewhat Agree	Completely Agree
1	2	3	4	5

1. Typically women look like models in ads
2. Typically women are as thin as the models in ads
3. The models in advertisements are real people
4. I could look like the models in ads
5. I could be as thin as the models in ads
6. Most women could be as thin as the models in ads by exercising and/or dieting
7. Models in ads are intelligent
8. Models in ads are beautiful
9. Models in ads have perfect bodies
10. Models in ads have lots of fun
11. I would like to live my life like the models in ads
12. I would like to be like the models in ads
13. I would like to be one of the models I see in ads
14. I would like to have a body like the models in ads
15. I would like to look like the models in ads
16. Being thin makes you happier
17. Being thin makes you have more fun
18. Being thin helps you make more friends

19. Being thin makes you more popular
20. Being thin makes you more attractive
21. I plan to go on a diet to lose weight in the next 6 months
22. I want to lose some weight in the next 6 months

(Irving, DuPen, Berel, 1998)

Appendix E

Perceptions of Media Literacy Intervention

Please complete the following questions in detail.

1. What are your general reactions/feelings to this video? Please explain.
2. Did watching the video change the way you think/feel about yourself/others? Please explain.
3. Did the video have an impact on you in other ways? If yes, please explain.

(Choma, Foster, Radford, 2007)

Appendix F
Sample Stimuli





Appendix G

Intervention Video and Copyright Information

<http://www.youtube.com/watch?v=iYhCn0jf46U>

Under Section 107 of the Copyright Act 1976, allowance is made for “fair use” for purposes such as criticism, comment, news reporting, teaching, scholarship, and research. Fair use is a use permitted by copyright statute that might otherwise be infringing. Non-profit, educational or personal use tips the balance in favor of ‘fair use’. The recent amendments to the Copyright Act of 1976 pertain to music. ‘Fair use’ remains in force for film and video.

Appendix H
Recruitment Invitation



Beauty Redefined: Exploring Media Literacy Perceptions and Body Image in Young Women

This is an invitation to participate in a research study that I am conducting for a graduate Masters Thesis in School and Counselling Psychology at the University of Saskatchewan. The primary purpose of the research is to train student-researchers in the methods of behavioural science. This Internet-based study will examine perceptions of a media literacy education intervention and aspects of body image in young women.

Participation in the study involves viewing media images and completing a questionnaire and open-ended questions following the media exposure. Some participants will be randomly assigned to view a brief media literacy education intervention tool, as well. Completion of this study will take approximately **20** minutes of your time.

Participation in this study is voluntary with no obligation to take part in the research or to continue with the study once it has begun. All of your responses are anonymous and the data you provide will be held in strictest confidence. Responses from all participants will be combined for analysis and reporting results. Finally, there are no known risks associated with this study.

The student researcher for this study is:

Olivia Pawluk, oap198@mail.usask.ca

The faculty supervisor for this study is:

Dr. Stephanie Martin, stephanie.martin@usask.ca, 966-5259

If you are interested in participating in this study, please use the following link:

Appendix I

Consent Form-SONA Participants



Beauty Redefined: Exploring Media Literacy Perceptions and Body Image in Young Women

You are invited to participate in a research study entitled **Beauty Redefined: Exploring Media Literacy Perceptions and Body Image in Young Women**. Please read this form carefully, and feel free to ask any questions you might have about the study.

Student-Researcher: Olivia Pawluk, Department of Educational Psychology and Special Education, oap198@mail.usask.ca

Supervisor: Stephanie Martin, Department of Educational Psychology and Special Education, (306) 966-5259, stephanie.martin@usask.ca

Purpose and Procedure: The present study investigates media exposure and how it affects aspects of body image. The study also examines perceptions of media imagery and a media literacy education intervention. Media literacy involves critically analyzing media messages as an attempt to prevent the internalization of thin ideals and to reduce social comparisons with the portrayed models. Participation in this study requires you view media images and respond to questions about the images, as well as your self-esteem, body satisfaction, and self-objectification. Also, half of the participants will be randomly assigned to receive a media literacy education intervention after viewing the media images and will be asked about their experience of receiving this intervention tool. As soon as you click the “continue” button at the bottom of this page, you will be directed to the beginning of the study. At the end of the questionnaire participants will be directed to a debriefing form. This study should take approximately 20 minutes of your time.

Risks: There are no known risks associated with participation in this study. However, should you happen to feel any emotional distress following the completion of the experiment, please contact the University of Saskatchewan Counselling Services at (306) 966-4920. Additional services to consult include the 24 hour Saskatchewan healthline at 1-877-800-0002 and Mental Health and Addiction Services at (306) 655-7777. Also, you may receive no personal benefits from participation in the study. At the end of the study you will be given a sheet that better explains the nature of the study and you will be given a chance to ask any further questions that you might have.

Compensation: You will receive a total of **one credit for completing this study**. Earned credits are based on the amount of time the researcher sets to complete the study (i.e., 20 minutes, in this case). The credits you earn will be applied to your final Psychology 120 or 121 grade. Please note that you will receive a credit for participating in a study even if you choose to withdraw from the study or do not answer every question.

Confidentiality: Your data will be kept completely confidential and no personally identifying information will be linked to your data. Fluid Survey does not collect identifying information, e-

mail addresses, or IP addresses, therefore, your confidentiality will be further protected. All data will be reported in aggregated form. The data and consent forms will be stored securely at the University of Saskatchewan by the supervisor. Normally, the data will be destroyed once the course has been completed. In instances where the data is published in an academic journal and/or presented at a professional conference, the data will be stored for a minimum of five years after completion of the study. When the data is no longer required, it will be destroyed beyond recovery.

Right to withdraw: Participants are free to leave any question unanswered. Additionally, you may withdraw from the study for any reason, at any time, without penalty of any sort.

Questions: If you have any questions concerning the study, please feel free to contact any of the student researchers or the faculty supervisor. You are also free to contact the researchers at the numbers provided above if you have questions at a later time. The proposed research was reviewed and approved on ethical grounds by the Department of Psychology Research Ethics Committee. Any questions regarding your rights as a participant may be addressed to the Behavioural Research Ethics Board through the Office of Research Services (966-2084). Out of town participants may call collect. You may obtain a copy of the results of the study by contacting the student-researcher or the supervisor.

Follow up: To obtain results from the study, please use the contact information given to you on the debriefing form. The researchers would be more than happy to provide summarized results of the study to participants.

Consent to Participate: I have read and understand the description of the research study provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I agree to participate in the study described above, understanding that I may withdraw my consent to participate at any time during survey completion. However, I understand that once completed and submitted, it is no longer possible to withdraw my survey results as the researcher is not collecting any identifying information and the results will be part of an aggregate pool. A copy of this consent form has been made available for me to print for my records. I understand that my participation in this survey implies consent.

Appendix J

Consent Form-All Other Participants



Beauty Redefined: Exploring Media Literacy Perceptions and Body Image in Young Women

You are invited to participate in a research study entitled **Beauty Redefined: Exploring Media Literacy Perceptions and Body Image in Young Women**. Please read this form carefully, and feel free to ask any questions you might have about the study.

Student-Researcher: Olivia Pawluk, Department of Educational Psychology and Special Education, oap198@mail.usask.ca

Supervisor: Stephanie Martin, Department of Educational Psychology and Special Education, (306) 966-5259, stephanie.martin@usask.ca

Purpose and Procedure: The present study investigates media exposure and how it affects aspects of body image. The study also examines perceptions of media imagery and a media literacy education intervention. Media literacy involves critically analyzing media messages as an attempt to prevent the internalization of thin ideals and to reduce social comparisons with the portrayed models. Participation in this study requires you view media images and respond to questions about the images, as well as your self-esteem, body satisfaction, and self-objectification. Also, half of the participants will be randomly assigned to receive a media literacy education intervention after viewing the media images and will be asked about their experience of receiving this intervention tool. As soon as you click the “continue” button at the bottom of this page, you will be directed to the beginning of the study. At the end of the questionnaire participants will be directed to a debriefing form. This study should take approximately **20** minutes of your time.

Risks: There are no known risks associated with participation in this study. However, should you happen to feel any emotional distress following the completion of the experiment, please contact the University of Saskatchewan Counselling Services at (306) 966-4920. Additional services to consult include the 24 hour Saskatchewan healthline at 1-877-800-0002 and Mental Health and Addiction Services at (306) 655-7777. Also, you may receive no personal benefits from participation in the study. At the end of the study you will be given a sheet that better explains the nature of the study and you will be given a chance to ask any further questions that you might have.

Confidentiality: Your data will be kept completely confidential and no personally identifying information will be linked to your data. Fluid Survey does not collect identifying information, e-mail addresses, or IP addresses, therefore, your confidentiality will be further protected. All data will be reported in aggregated form. The data and consent forms will be stored securely at the University of Saskatchewan by the supervisor. Normally, the data will be destroyed once the course has been completed. In instances where the data is published in an academic journal and/or presented at a professional conference, the data will be stored for a minimum of five years

after completion of the study. When the data is no longer required, it will be destroyed beyond recovery.

Right to withdraw: Participants are free to leave any question unanswered. Additionally, you may withdraw from the study for any reason, at any time, without penalty of any sort.

Questions: If you have any questions concerning the study, please feel free to contact any of the student researchers or the faculty supervisor. You are also free to contact the researchers at the numbers provided above if you have questions at a later time. The proposed research was reviewed and approved on ethical grounds by the Department of Psychology Research Ethics Committee. Any questions regarding your rights as a participant may be addressed to the Behavioural Research Ethics Board through the Office of Research Services (966-2084). Out of town participants may call collect. You may obtain a copy of the results of the study by contacting the student-researcher or the supervisor.

Follow up: To obtain results from the study, please use the contact information given to you on the debriefing form. The researchers would be more than happy to provide summarized results of the study to participants.

Consent to Participate: I have read and understand the description of the research study provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I agree to participate in the study described above, understanding that I may withdraw my consent to participate at any time during survey completion. However, I understand that once completed and submitted, it is no longer possible to withdraw my survey results as the researcher is not collecting any identifying information and the results will be part of an aggregate pool. A copy of this consent form has been made available for me to print for my records. I understand that my participation in this survey implies consent.

Appendix K
Debriefing Form-All Participants



Debriefing Form

Thank you very much for your assistance with this study! Your participation assists in the completion of my graduate, Masters thesis at the University of Saskatchewan, and provides me with the opportunity to increase my knowledge of, and experience with, experimental, behavioral research methods.

By grade 10, approximately 40% of Canadian adolescent females are dissatisfied with their bodies. To address this concern, an extensive amount of literature has demonstrated that media exposure (e.g., magazine advertisements) is a key component in producing multiple, adverse effects. Research has addressed these unfavourable outcomes by investigating interventions to reduce them. In particular, media literacy has been a promising avenue explored within the field of education. Media literacy involves critically analyzing media messages as an attempt to prevent the internalization of thin ideals and to reduce social comparisons with the portrayed models.

Objectification theory often serves as a framework for research on media and body image and claims that females are subject to a distinctive process of inspection, evaluation, and treatment as an object, valued mainly for their use to others. Furthermore, the theory specifies that *self-objectification* is the process of internalization of other's evaluations, which results from the normative sexual objectification of the female body by society.

Inconsistencies exist in the literature regarding the effects of media literacy education interventions that target body image. Positive, negligible, and negative effects of media literacy on features of self-perception have all been found. Thus, one objective of the proposed work is to examine how a media literacy intervention affects specific aspects of women's well-being. In addition, to date, only one study has investigated media literacy effects through the lens of objectification theory; however, this study did not examine the effects based on media exposure, but rather investigated the isolated effects of the intervention. The proposed study aims to address this research gap by exploring perceptions of a media literacy intervention (using media exposure) in a western Canadian sample of young women. This gap will also be addressed based on the tenets of objectification theory. Comparing participants' perceptions on a measure of media imagery attitudes will be an additional way to investigate how a media literacy intervention impacts internalized perceptions. On the basis of prior findings it is predicted that: (1) viewing the media literacy education intervention will result in increased self-esteem and body satisfaction. Self-objectification will be included as an exploratory variable as its outcome has not been specifically tested in relation to a media literacy intervention, coupled with media exposure; (2) the media literacy education intervention will be positively perceived by participants, and (3) those who are randomly assigned to view the media literacy education intervention will report increased perceptions of media imagery skepticism than those who do not receive the education intervention.

Your data will be kept completely confidential and no personally identifying information will be linked to your data. All data will be reported in aggregated form. The data and consent forms will be stored securely at the University of Saskatchewan by the supervisor. Normally, the data will be destroyed once the course has been completed. In instances where the data is published in an academic journal and/or presented at a professional conference, the data will be stored for a minimum of five years after completion of the study. When the data is no longer required, it will be destroyed beyond recovery.

Due to the experimental nature of this research, we would prefer that you not share the purpose of this study with friends or family that may partake in the study.

Although there are no known risks associated with the study, if you happen to experience any emotional distress due to the completion of the study, please contact the University of Saskatchewan Counselling Services at (306) 966-4920. Additional services to consult include the 24 hour Saskatchewan healthline at 1-877-800-0002 and Mental Health and Addiction Services at (306) 655-7777.

If you have any questions about this study, or would like to receive a copy of the completed report, please contact the student researcher: Olivia Pawluk at oap198@mail.usask.ca, or the Faculty Supervisor, Dr. Stephanie Martin at stephanie.martin@usask.ca or (306) 966-5259.

Thank you again for your participation in this study! ☺

Student Researcher:

Olivia Pawluk

Faculty Supervisor:

Dr. Stephanie Martin