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The Effect of Media Literacy Training on the Self-Esteem and Body-Satisfaction Among Fifth Grade Girls

Holly Mathews
Walden University

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Walden University

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Holly Mathews

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Walden University
2016

Abstract

The Effect of Media Literacy Training on the Self-Esteem and Body-Satisfaction
Among Fifth Grade Girls

by

Holly Mathews

MS, Walden University, 2010

BS, The Pennsylvania State University, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

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December 2016

Abstract

Repeated exposure to media images that portray women as sex objects can have negative long-term effects on self-esteem beginning in preadolescence. Negative effects include decreased feelings of competence, increased focus on appearance, increased body dissatisfaction, and limited achievement in domains not related to appearance. There is a gap in the literature examining if media literacy training can mitigate the negative effects of exposure to sexualized media content. Festinger's social comparison theory and Vygotsky's theory of cognitive development provided the framework for this study. A quasi-experimental pre-post-test design was used to examine the interaction of media literacy training and time of measurement, on self-esteem and body-satisfaction in preadolescent girls. Archival data from 73 5th grade girls were obtained from a media literacy group with the addition of data from 14 5th grade girls collected to form a non-media literacy comparison group to control for confounding variables and bias. Two separate 2-way, mixed-model, factorial ANOVAs were conducted. The analyses failed to show a significant interaction between literacy group and time of measurement on self-esteem and/or body-satisfaction. However, the potential effectiveness of media literacy skills in neutralizing the negative impact of sexualized media imagery on preadolescent girls' self-esteem and body-satisfaction was observed in the between-group analyses. Positive social change may occur when society continues to identify and incorporate positive self-esteem influences and media literacy skills into the lives of preadolescent girls as to mitigate negative long-term effects of media sexualization.

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Dedication

The hard work that is reflected by this document represents my desire to help others through my chosen profession and my own personal determination to do what challenges me. From a very young age, my mother taught me what it means to give all that I have for what I want. She taught this through her actions and love for my siblings and me.

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First, my husband John has been my number one supporter. Even when he was overseas, fulfilling his commitment to our great country in the United States Navy, I could feel him cheering me on to the finish line and telling me that I can do it. I am forever grateful for the way he believed in me and encouraged me along the way. My children, Liam and Sydney, for learning what a dissertation is, seeing all my hard work and determination to complete something I started, no matter how many obstacles showed up along the way. I wish you both the same type of determination and success that I am finding in life as I progress through adulthood.

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Chapter 1: Introduction to the Study

Introduction

This study was designed to examine whether introducing media literacy skills can mitigate the negative effects of media-sexualization on preadolescent girls' self-esteem and body-satisfaction. This is an important topic to study because children consume large quantities of media each day (De Abreu, 2010) and are increasingly exposed to sexual imagery that defines self-worth based on idealized standards of physical attractiveness (Thompson, 2010). Preadolescence is a critical stage of cognitive and identity development (Temur & Inan, 2012). Girls' repeated exposure during preadolescence to sexual media images that portray women as "sex objects" can have negative long-term effects on self-esteem including decreased feelings of competence, increased focus on appearance, increased body dissatisfaction, and limited achievement in domains not related to appearance (Grabe & Hyde, 2009; Graff, Murnen, & Smolak, 2012).

Positive social change implications of this study include identifying and addressing sources of low self-esteem in girls. Doing so is important, given the link between low self-esteem and a variety of psychological problems including anxiety, eating disorders, depression, and school failure (Grabe & Hyde, 2009; Haas, Pawlow, Pettibone, & Segrist, 2012). Results of this study may be used as evidence of the need for the regular inclusion of media literacy education in elementary school curricula and the lives of preadolescent girls.

This chapter includes background information on the topic, the problem statement, a discussion of the purpose of the study, the research questions and hypotheses, and discussions of the theoretical framework and nature of the study. Further, I define the variables of the study, discuss my assumptions and the study's scope, delimitations, limitations, significance, and conclude with a summary.

Background

Media are embedded in our lives and function as sources of information (Chang et al., 2011; Linz, Wilson, & Donnerstein, 1992). With consumption habits consistently on the rise, media have become the primary socializing agent for children in the modern world (Chang et al., 2011). Concerns arise since media associate physically attractive features with happiness, desirability, and success in life (Yamamiya et al, 2005). Graff et al. (2012) found that constant exposure to women whose defining feature is their sexiness leads to the formation of a cognitive schema that focuses on being sexy and limits the ability to see alternatives. When consumers socially compare themselves to sexualized media images, they are more susceptible to internalizing negative feelings about themselves leading to body dissatisfaction and decreased self-esteem (Graff et al., 2012).

In 2007, the American Psychological Association (APA) assembled a task force and a call for research examining the link between media and the sexualization of girls. The APA task force concluded that there is ample evidence indicating that media sexualization has negative effects on women in various domains, including cognitive functioning, physical and mental health, sexuality and attitudes and beliefs (APA, 2007).

Even though most existing research involves college-age women, it is believed that such effects can be generalized to younger adolescents and girls (APA, 2007). However, research to-date has failed to identify ways to mitigate the negative effects of media sexualization, specifically in preadolescent girls. There is a need for research that provides possible solutions to the negative impact on self-esteem and body-satisfaction generated by media images of idealized female sexuality—a need that has warranted this study.

Problem Statement and Purpose of the Study

The literature shows that children are consuming media and technology at a growing pace (De Abreu, 2010). In the field of technology, advances allow for flexible production, distribution, and consumption of data disseminated by the media (Chu, 2010). Such flexibility brings a high exposure potential to what many believe to be “harmful” media imagery. For example, sexualized imagery pervades commercials, programming for children, supermarket aisles, clothing, and so forth. Researchers have indicated that sexual imagery dominates television-programming (Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008). Many are concerned with children’s increased exposure to sexual imagery that defines self-worth based on narrow standards of physical attractiveness (Thompson, 2010). The internalization of sexual images by women and girls may lead to problems like decreased feelings of competence, increased focus on appearance, increased body dissatisfaction, and limited achievement in domains not related to appearance (Grabe & Hyde, 2009; Graff, Murnen, & Smolak, 2012).

In 2007, the APA task force initiated a call for research examining the link between media and the sexualization of girls. Since then, researchers have confirmed the impact media sexualization has on girls and women, from adolescence to adulthood, and have explored how media literacy education might mitigate the negative effects of media sexualization (Cakir, Kacur, & Aydin, 2011; Graff et al., 2012; Haas, Pawlow, Pettibone, & Segrist, 2012; Halliwell et al., 2011; Sharma, 2012; Temur & Inan, 2012). However, there is a gap in the literature regarding whether media literacy skills will neutralize this negative impact in preadolescent girls.

Media literacy is defined as the ability to access, analyze, evaluate, and transmit media messages (NAMLE, 2007). Studies show that the receipt of sexual media can be associated with a decrease in feelings of competence, increased focus on appearance, increased body concerns, and limited achievement in domains not related to appearance (Graff, Murnen, & Smolak, 2012). Because media constructs reality in a way that has ideological, moral, and commercial implications, increased active participation in processing media allows the audience to think more critically about media imagery (Lee, 2010). Therefore, the purpose of this quantitative study was to determine if media literacy impacts the self-esteem and body-satisfaction of preadolescent girls. Because participants were not randomly assigned to media literacy condition, I used a pre-post design to test the interaction between literacy group and time of measurement on the outcome variables. Although the 2 x 2 factorial analysis included tests of the main effects of each factor, the hypotheses are specifically focused on the interaction.

Research Questions and Hypotheses

The research questions and hypotheses were as follows:

RQ1: There will be a significant interaction between literacy group and time of measurement on self-esteem such that those in the media literacy group will have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_0 : Preadolescent girls in the media literacy group will not have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_A : Preadolescent girls in the media literacy group will have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

RQ2: There will be a significant interaction between literacy group and time of measurement on body-satisfaction such that those in the media literacy group will have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_0 : Preadolescent girls in the media literacy group will not have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_A : Preadolescent girls in the media literacy group will have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

I used two separate 2-way, mixed-model factorial ANOVAs to examine changes in self-esteem and body-satisfaction over time between those who received media literacy education and those who did not. The time of measurement (pre versus post) constituted the within-subjects factor, and the presence of media literacy training (received versus not received) constituted the between-subjects factor in the mixed ANOVA. The dependent variables were self-esteem and body-satisfaction, while the independent variables were time and media literacy training. I used descriptive statistics to summarize, organize, and simplify collected data. Since I expected significant interaction effects, results were interpreted at $p < .05$.

Theoretical Framework for the Study

Social comparison theory explains that the process of social comparison fulfills the fundamental needs of self-evaluation, self-enhancement, and self-improvement (Festinger, 1954). Because American culture focuses attention, disproportionately, on the sex appeal and desirability of women, women and girls tend to partake in upward social comparisons that focus on appearance, and as a result are dissatisfied with their appearance (Want et al., 2009). Upward social comparisons with others, especially media images of idealized female beauty, can strongly influence how women feel about themselves and threaten their self-esteem (Smeesters et al., 2009). Smeesters et al. found

that women who view thin female bodies that are considered the ideal body type experience lower self-esteem and higher body dissatisfaction than women who view neutral images. Continual exposure to sexualized media images may lead women and girls to preoccupy themselves with sexiness, limiting their ability to see alternatives (Graff et al., 2012). Social comparison theory provides insight as to why comparing oneself to media images of physically-perfect bodies negatively impacts self-esteem (Festinger, 1954) and suggests a proactive approach to mitigate the effects on preadolescent girls.

Vygotsky's (1978) theory of cognitive development posits that social experience and cognitive development are inextricably intertwined (Tudge & Winterhoff, 1993). Once the social comparison process begins, there is an increased threat to self-esteem as the individual begins to institute cognitive processes to internalize sexualized media imagery. The internalization of unattainable, idealized images of female beauty, when compared with oneself, leads to body dissatisfaction and decreased self-esteem (Graff et al., 2012). This is especially true in the preadolescent stage of development, a time when media-habit formation, sense of self, and cognitive development are paramount (Temur & Inan, 2012). Without critical analysis and cognitive processing, constant exposure to sexualized media imagery may lead to formation of a self-concept that focuses on physical attractiveness and the internalization of narrow standards of self (Graff et al., 2012). In Chapter 2 I provide a more thorough analysis of Festinger's social comparison

theory and Vygotsky's theory of cognitive development and discuss how I used these theoretical frameworks as the foundation for this study.

Nature of the Study

I employed a quasi-experimental pre-post-test design to examine the effect of both media literacy training (IV₁) and time of measurement (IV₂) on self-esteem (DV₁) and body-satisfaction (DV₂) in preadolescent girls. This study included one repeated-measures factor (time), and one between-subjects factor (media group). The setting of the study was Virginia, with a sample of 87 5th-graders, 73 of whom participated in a media literacy group and 14 of whom did not. I chose this sample size because the G*Power (Universitat Dusseldorf, 2010-2013) analysis of an *F*-test ANOVA (repeated measures, within-between interaction option with four groups and two measurements) predicted that in order to achieve a medium effect size ($f=.25$) with alpha .05 and .95 power, the sample size would need to include approximately 76 participants.

Data for the experimental group were previously collected from the *Girl Smarts* program between February-April 2015. Data for the non-media literacy comparison group were collected between October 2015-January 2016. Since the experimental data were existing data gained from the *Girl Smarts* program with non-media literacy comparison group data collected and compared to mitigate concerns with confounding variables, the groups were not randomly assigned. Both the experimental and comparison groups were made up of 5th grade girls, between the ages of 10-12. Thus, the design of the study was quasi-experimental with two factors being compared between

groups over time. I used SPSS 21.0 to analyze the data— specifically two separate 2-way, mixed-model, factorial ANOVAs.

The Piers-Harris Children's Self-Concept Scale, Second Edition (Piers-Harris 2), also known as *The Way I Feel About Myself*, is a self-report questionnaire designed to measure six separate subscales: (a) physical appearance and attributes, (b) freedom from anxiety, (c) intellectual and school status, (d) behavioral adjustment, (e) happiness and satisfaction, and (f) popularity (Piers and Harris, 1986). I used the Pier-Harris 2 results to measure both self-esteem (total score), and body-satisfaction (physical appearance and attributes subscale). In Chapter 3, I explain the nature of the study in greater detail.

Definitions

Media literacy: The ability to access, analyze, evaluate, and transmit media messages (NAMLE, 2007). Media literacy skills were introduced in the *Girl Smarts* workshop *When beauty BECOMES the beast!* between February-April 2015, which was the source of the experimental dataset. The core concepts of media literacy education provided the structure for the workshop: access, analyze, evaluate, and communicate. They are as follows:

Access: To obtain, examine, or retrieve. In media literacy education, access refers to distinguishing and using appropriate types of media for a variety of purposes (Tulodzieki & Grafe, 2012).

Analyze: To examine methodically and in detail the constitution or structure of, typically for purposes of explanation and interpretation. In media literacy

education, analyzing involves thinking about the audience, meaning, and reality of media imagery (NAMLE, 2007).

Evaluate: To form an idea of the value. In media literacy education, evaluating allows consumers to interpret media imagery against the background of their own knowledge, attitudes, and social conditions (Tulodzieki & Grafe, 2012).

Communicate: To share or exchange information, news, or ideas. In media literacy education, communication involves putting what was learned into everyday practice (Cakir et al., 2011). The consumer must actively construct new messages from the media and pass these messages on to others.

Self-esteem: An evaluation of the self that guides behaviors based on perceived capabilities (Maslow, 1942).

Body-satisfaction: A self-evaluation of one's body and an important source of self-esteem (Smeesters et al., 2009).

Assumptions

The most significant assumption in this study was related to the experimental group dataset obtained by the *Girl Smarts* program and included in this study's analysis. I assumed that the primary data collection by *Girl Smarts* was conducted rigorously, taking care of quality measures during data collection. I also assumed that sound decisions were made to reduce the role of bias and confounding variables in the data collection process.

Past researchers (APA, 2007) have documented that the decrease in self-esteem occurs when girls transition from the preadolescent to the adolescent stage of development. I thus assumed that decreased self-esteem will exist in adolescence unless there are specific proactive interventions designed to target this problem. Additionally, I assumed that the media would continue to produce and broadcast imagery that includes the sexualization of women and girls. These assumptions were necessary to the context of the study because my goal was to identify an effective technique that will positively influence preadolescent girls' body-satisfaction and self-esteem.

Scope, Limitations, and Delimitations

The sample, research design, and accuracy of self-report measures represent the limitations of the study. This study's experimental group sample consisted of 5th grade girls in Virginia who attended the *Girl Smarts* afterschool program. The non-media literacy comparison group sample consisted of 5th grade girls who did not attend the *Girl Smarts* afterschool program. Since this population is not representative of the entire population of 5th grade girls, the results of the study should not be generalized to the general population. Since the current literature reflects a gap in the research, specifically in regard to measuring the effect of media literacy on self-esteem and body-satisfaction of 5th grade girls, sampling only 5th grade girls was a deliberate limitation of the study.

The research design presented the second limitation of the study. There may have been confounding variables. For example, within the three-week period of the study, media literacy skills along with other variables such as peer interaction, media

involvement, or family involvement may have affected self-esteem levels of the participants. However, including the non-media literacy comparison group was a way to mitigate some of the concerns with such confounding variables. Self-report measures require participants' honest self-appraisal. This may be difficult when measuring body-satisfaction and self-esteem. Participant responses may not be entirely reliable when participants answer in a socially desirable or psychologically defensive way.

Significance

This project serves as a contribution to a greater understanding of the potential that media literacy skills have for positively impacting preadolescent girls' self-esteem and body-satisfaction. Because children are exposed to media steadily at the elementary school age, cultivating media literacy habits to neutralize potentially negative effects preoccupies the minds of parents, educators, and researchers (Chang et al., 2011). Problems arise when children are provided with ready access to media and adults are expected to monitor what media is consumed. Even though parents are responsible for purchasing technology, they are often unfamiliar with its use and capabilities which can impede their monitoring of undesirable material (De Abreu, 2010). Therefore, it is believed that teaching children to think critically about media imagery is necessary and is, understandably, the foundation of media literacy education (De Abreu, 2010).

The results of this study may provide others insight into the effectiveness of media literacy skills in neutralizing the negative impact of sexualized media imagery on preadolescent girls' self-esteem and body-satisfaction. Social change will be achieved

once preadolescent girls learn to think critically and gain an increased understanding that comparing oneself to unrealistic body ideals can be detrimental to self-esteem and long-term psychological health. It may be beneficial to include media literacy in elementary school curricula and the lives of preadolescent girls. In order to be effective, intervention must start while children are elementary school-age, prior to the formation of media consumption habits at a time when critical thinking and self-esteem may be influenced the most (De Abreu, 2010).

Summary

This chapter served as an introduction to the focus and significance of this study. The problem statement, purpose of the study, along with research question and hypothesis was explained. The study's theoretical framework included Festinger's (1954) social comparison theory and Vygotsky's (1978) theory of cognitive development. I used these complementary theories to examine the link between social comparison and the cognitive internalization of sexualized media imagery. Further, I explained the nature of the study including assumptions, scope, and limitations. A detailed description of the theoretical framework as well as a thorough review of the literature follows in Chapter 2.

Chapter 2: Literature Review

Introduction

The internalization of sexual messages by women and girls may lead to problems like decreased feelings of competence, increased focus on appearance, increased body dissatisfaction, and limited achievement in domains not related to appearance (Grabe & Hyde, 2009; Graff et al., 2012). Numerous sexual messages are transmitted through media which children are consuming at a growing pace (De Abreu, 2010). Problems arise when preadolescent girls' come to define self-worth based on narrow standards of physical attractiveness (Kilbourne, 2012; Thompson, 2010) since girls as young as 7-years-old internalize messages from the media regarding their bodies (Grabe & Hyde, 2009).

Technological advances have introduced a higher exposure potential to harmful media content, while sexualized imagery pervades television programming and advertisements (Pinkleton et al., 2008). What is still unknown is whether the introduction of media literacy skills targeted at preadolescent girls neutralizes this negative impact. The purpose of this quantitative study was to determine if the introduction of media literacy skills impacts the self-esteem and body-satisfaction of preadolescent girls.

Problem Relevance

A child's environment influences the development of self-esteem (Johnson, 2011; Hosogi, Okada, Fujii, Noguchi, & Wantanabe, 2012). There is a link between low self-esteem and a variety of psychological problems including anxiety, eating disorders,

depression, and school failure (Grabe & Hyde, 2009; Haas et al., 2012; Hosogi et al., 2012; Johnson, 2011; Lindner, Tantleff-Dunn, & Jentsch, 2012; Racine, DeBate, Gabriel, & High, 2011; Smeesters, Mussweiler, & Mandel, 2009; Want et al., 2009). Healthy self-esteem enables psychological stability and promotes coping with stressful life events (Hosogi et al., 2012; Racine et al., 2011). It is important to identify and address sources of low self-esteem, which was the goal of this study.

Sexual information is acquired from parents, peers, and media (Pinkleton et al., 2008). Thompson (2010) explained that the purity of childhood is being contaminated by the sexualization of clothing, makeup, dance, and posture. Problems arise with increasing media consumption by preadolescent girls since women are regularly portrayed as sex objects in American culture (Graff, et al., 2012; Kilbourne, 2012), and preadolescent girls begin to sexualize themselves. For example, given that they desire to please adults, children often adopt adult markers of sexuality (e.g., clothing, behavior) and mimic adults (Thompson, 2010). This is concerning because sexualized behavior has been shown to lead to perceptions of incompetence, and body preoccupation and dissatisfaction (Grabe & Hyde, 2009; Graff et al., 2012).

Children are likely to internalize and adopt a cognitive schema that focuses on being sexy (Grabe & Hyde, 2009; Graff et al., 2012). When the sexy ideal is not achieved, children—especially preadolescent girls—may suffer a blow to their self-esteem. Researchers, educators, and policy makers may use the results of this study as evidence of the need for media literacy education in elementary school curricula.

I begin this chapter with an explanation of social comparison theory and the theory of cognitive development, and offer insight on why I chose each theory to guide this research study. Next, I offer an introduction to sexualized media content, including sexualization and others' perceptions. The following section on self-esteem highlights the potential problems associated with the prevalence and consumption of sexual media content and its impact on self-esteem. Finally, I discuss media literacy skills, including media literacy at school. I hypothesized that skills learned from media literacy will buffer potential negative outcomes for preadolescent girls who consume sexualized media images. An explanation of the gap in the research is provided along with research methods I used to address this gap.

Literature Search Strategy

I used EBSCOhost, which I accessed via Walden University's library, to access articles needed to complete this literature review. Databases that I searched include PsycINFO, Academic Search Complete, Communication and Mass Media Complete, and PsycARTICLES. The majority of sources I gathered were peer-reviewed journal articles, while some were obtained from websites relevant to media literacy such as NAMLE and CML. I used many search terms when reviewing the literature, including combinations of the following: *media*, *media literacy*, *critical thinking*, *curriculum*, *sexualization*, *self-esteem*, *body-satisfaction*, *Festinger*, *Vygotsky*, *teaching*, *learning*, *social comparison theory*, and *theory of cognitive development*. I limited my review to full text articles

published between 2000 and 2013. However, I used older, seminal sources as references for social comparison theory and the theory of cognitive development.

Theoretical Foundation

Social Comparison Theory

Social comparison theory, first proposed by Festinger (1954), is based on the principle that individuals seek after accurate self-evaluations. To accomplish self-evaluation, people associate and compare themselves with others. The process of social comparison fulfills the fundamental needs of self-evaluation, self-enhancement, and self-improvement (Festinger, 1954). Self-evaluation is a process whereby people seek informative feedback about their characteristics and abilities from others. Many people have a basic need to maintain a stable and accurate self-view. Self-enhancement occurs when people are looking for a positive self-image instead of accurate information about themselves. This tendency is known as a downward comparison – when an individual compares oneself to someone they outperform (Festinger, 1954). The need for self-improvement compels individuals to make an upward comparison; when a person wants to advance their abilities, they compare themselves with those who outperform their own abilities (Festinger, 1954). Although, upward comparisons can be detrimental when the individual internalizes negative feelings of self and lacks motivation to improve.

No matter what the goal, people are selective with comparisons. For example, Festinger (1954) proposed that an individual does not tend to evaluate or compare her or himself with others who are too divergent from them. Individuals are generally more

attracted to comparison situations where they feel others are similar to themselves. Smeesters et al. (2009) affirmed this notion of selective social comparison when establishing similarity or dissimilarity and how social comparison affects self-esteem. In both of Smeesters et al. experiments, baseline data obtained from a body-satisfaction survey administered pre-study were utilized.

In the first study, 156 female undergraduates into categories based on body mass index (BMI), low-BMI, normal-BMI, or high-BMI, then exposed to a set of advertisements containing models whom were classified as either moderately thin, moderately heavy, extremely thin, or extremely heavy (Smeesters et al., 2009). Participants completed a Picture Comparison Task to measure their (dis)similarity focus. Then they responded to 20 statements designed to assess appearance self-esteem after ad exposure. Results of this study showed that for normal-BMI women, exposure to moderately thin models (due to similarity focus) and extremely heavy models (due to dissimilarity focus) enhanced self-esteem, whereas exposure to moderately heavy models (due to similarity focus) and extremely thin models (due to a dissimilarity focus) lowered self-esteem. These results are consistent with Festinger's (1954) belief that individuals tend to compare themselves to others perceived as similar.

In the second study by Smeesters et al. (2009), only low-BMI and high-BMI participants were included since the first study already determined that normal-BMI women compare themselves to individuals with similar BMIs. The procedures were identical to the first study; however, a control group, which included a mix of low- and

high-BMI participants, was added but not exposed to advertisements. Results from this study showed that when a similarity focus is present, high self-esteem for low-BMI and low self-esteem for high-BMI participants is not due to chronic differences in self-esteem, but an effect of comparison processes. The control group produced no difference in self-esteem pre- and post-assessment. Exposure to media imagery (advertisements specifically) activated the social comparison process in the participants, and their self-esteem was affected.

Smeesters et al. (2009) provided insight into the influence models with various BMI's in advertisements may have on college-age women . It may have been beneficial for the researchers to assess whether the participants self-perceived BMI was aligned with their actual BMI. Participants did not know that their BMI was calculated and utilized as a variable in the study, but knowing which group the participants self-identified with would have been valuable when interpreting the results. Also, understanding how media imagery similarities impact different age groups, not just college women, could help explain the effects of social comparison across variously aged women and girls.

Bell and Dittmar (2011) surveyed 199 adolescent girls and obtained results similar to Smeesters et al. Adolescents, who identified with the thin media model, also displayed a higher level of negative body image compared to adolescents who did not identify with the models. Results were not dependent on the amount of exposure, and were not specific to the media format (i.e., internet, TV, music video, magazines,

computer games). The deciding factor in whether or not the adolescent girls displayed an increase in negative feelings about their bodies was whether or not they socially compared their own body and identified with the thin media image. Bell and Dittmar (2011) agreed that more research needs to be done on mitigating the negative effects of unrealistic body ideals displayed in the media. The mass media is the single biggest promoter of the unrealistic and artificially thin ideal (Bell & Dittmar, 2011). Bell and Dittmar suggested that media literacy skills be incorporated into the lives of young girls.

Bell and Dittmar's (2011) and Smeesters et al.'s (2009) studies demonstrated that once similarity is acknowledged and accepted, the individual may then experience the need to conform, also known as "pressure towards uniformity," to reduce discrepancies between themselves and the comparison individuals (Festinger, 1954). The problem with pressure towards uniformity is that total uniformity is never reached (Festinger, 1954). Negative body image is the result of perceived environmental pressure to conform to a culturally defined body and beauty ideal (Bell & Dittmar, 2011). People have the desire to emulate the comparison individual, although this is not possible since abilities and characteristics vary among individuals and the media's unrealistic portrayal of beauty is impossible for the majority of women and girls to achieve (Bell & Dittmar, 2011). Such is the case with mass media's display of idealized sexual attractiveness. As successful media researcher Jean Kilbourne (2012) stated in the world-renowned video series *Killing Us Softly*, "failure is inevitable because the ideal is based on absolute flawlessness." Social comparison theory provided a solid framework for this study and

explained how sexualized media imagery may affect preadolescent girls' self-esteem and body-satisfaction.

Sexualized media imagery and social comparison. In American culture, women are portrayed as sex objects (Graff et al., 2012; Kilbourne, 2012). Mass media outlets concentrate their attention disproportionately on sex appeal and desire. Want et al. (2009) illustrated how this emphasis on appearance lowers appearance satisfaction in individuals who partake in social comparisons. Graff et al. (2012) added that constant exposure to such beliefs might lead to the development of a cognitive schema focused on being sexy, limiting one's ability to see alternatives. For instance, in the media women are often seen as beautiful but less intellectually competent compared to men (Graff et al., 2012). Continual exposure to such content may lead girls to accept limited roles for themselves focused on appearance, encouraging body concerns and limiting achievement in non-appearance domains (Grabe & Hyde, 2009). Grabe and Hyde (2009) and Graff et al. (2012) agreed that adopting values based primarily on sex appeal and narrow standards of attractiveness has been shown to result in behaviors linked to self-objectification.

Fredrickson and Roberts (1997) described sexual objectification as the experience of being treated as "a body" with value based on use or consumption by others. This belief guided the development of objectification theory which recognizes when women evaluate themselves according to the views of others. The problem with objectifying oneself in this way is the individual may never feel adequate. Instead of focusing on the

function of the body, individuals judge the appearance of their bodies in order to meet cultural standards of attractiveness (Fredrickson & Roberts, 1997; Grabe & Hyde, 2009; Graff et al., 2012; Kilbourne, 2012).

Lindner et al. (2012) explored if self objectification, objectification of others, and social comparison function together as contributors to body shame, body dissatisfaction, and eating disorder symptomology. Five hundred forty nine female undergraduates were included in the study and results showed a strong correlation between objectification and social comparison. Lindner et al. concluded that the process of objectification likely prompts a woman to wonder how her body or appearance compares to others. Women who objectify their bodies and compare their appearance with others reported increased body shame, body dissatisfaction, and disordered eating. Such findings align with multiple studies and indicate that appearance comparisons have been linked to body dissatisfaction and complex mental health issues including poor self-esteem, increased anxiety, depressive symptoms, and disordered eating behaviors (Grabe & Hyde, 2009; Haas et al., 2012; Hosogi et al., 2012; Johnson, 2011; Racine et al., 2011; Smeesters et al., 2009; Want et al., 2009). What is still unknown is which variable precedes the others. For instance, do individuals with mental health issues engage in social comparison or does social comparison lead to the development of mental health issues? Lindner et al. (2012) do not specify whether low self-esteem leads to an increase in social comparison or social comparison leads to a decrease in self-esteem. Further studies exploring the

directional link between constructs is needed to gain understanding of the effects sexualized media imagery may have on female consumers self-esteem.

How social comparison theory relates to the proposed study. Social comparisons are a means of self-evaluation that allow an individual to feel connected to others (Festinger, 1954) and promote the appearance-comparison process (Lindner et al., 2012; Smeesters et al., 2009). With social comparisons, individuals strive for uniformity by attempting to reduce discrepancies between comparison individuals and themselves (Festinger, 1954; Want et al., 2009). However, some changes are not possible when trying to reduce discrepancies and can lead to feelings of failure and inadequacy (Festinger, 1954). Without critical analysis, constant exposure to sexualized media messages may lead to self-formation that focuses on physical attractiveness and the internalization of narrow standards of self. Grabe and Hyde (2009) noted that girls begin to internalize messages from the media regarding their bodies as young as 7-years-old. Such unrealistic social comparisons threaten self-esteem since, for girls and women, body image is its primary source (Smeesters et al., 2009).

How research questions relate to the existing theory. The proposed study is designed to determine if the introduction of media literacy skills will mitigate the negative effects of sexualized media imagery on preadolescent girls' self-esteem and body-satisfaction. Social comparison theory offers a framework for understanding the potential impact sexual imagery in the media may have on self-esteem (Festinger, 1954). Advertisers are aware of the desire for social comparison and intentionally use sexually-

idealized images to encourage viewers' social comparisons (Want et al., 2009). Want et al. suggested critical thinking and conscious information processing may impede the initial automatic social comparison that occurs with media viewing. It is important to teach preadolescent girls the skills needed to mitigate potentially negative media influences (De Abreu, 2010) and was the goal of this study. It was hypothesized that assessing the self-esteem of preadolescent girls, pre- and post- introduction of media literacy skills, would demonstrate the benefit of including media literacy programs in the lives of preadolescent girls.

Vygotsky's Theory of Cognitive Development

Once a social comparison is made, cognition makes meaning of the social experience. Vygotsky's (1978) theory of cognitive development posited that cognitive development and social experience are intertwined and cannot be separated (Tudge & Winterhoff, 1993). Children internalize relevant influences from the social world as personality and understanding develop (Tudge & Winterhoff, 1993). Interpersonal processes (social and cognitive) are transformed into interpersonal characteristics (internalization). The internalization of social influences is part of human experience and evident in the portrayal of sexualization in the media and the tendency for girls to internalize media messages. Problems arise from the internalization of negative messages and to body dissatisfaction and decreased self-esteem (Graff et al., 2012).

Yamamiya et al. (2005) included 123 college women between the ages of 18-29. Yamamiya et al. surveyed participants pre- and post- media literacy intervention to

determine if media-ideal internalization levels and social comparison tendencies differ between the experimental and control groups. Results indicated that even a 5-minute exposure to thin and beautiful media images led to more negative body state than does exposure to neutral images, particularly with individuals classified as high media-ideal internalization potential and high social comparison tendency. Participants in the experimental group, who received media literacy training, experienced a significant decrease in media-ideal internalization and social comparison tendencies.

Since this study was conducted over a short period of time and no follow-up information was gathered, it is unknown if such brief interventions have lasting power beyond the study's duration. However, studies similar to Yamamiya et al. show promise for media literacy programs in the educational setting designed to reduce the impact of the internalization of negative media messages. Imbedding media literacy into elementary school curricula may be what's needed for long-term positive effects.

In order to be effective, an educational intervention designed to equip preadolescent girls with skills to promote critical thinking about the media content they consume, must be delivered at an appropriate time in the child's cognitive development. Additionally, when deciding at what age to introduce media literacy skills, one must look at the media habits of children. Since media habit-formation and consumption is greatest during adolescence, presenting media literacy skills to preadolescents is a proactive approach (Pinkleton et al., 2008). Pre-adolescence seems to be the best time for media

literacy programs when considering media habit-formation and cognitive development (Temur & Inan, 2012).

Vygotsky's (1978) theory of cognitive development provides a framework for understanding teaching and learning. Critical thinking is a cognitive skill that enables the individual to collect and utilize information effectively (Grosser, 2006), but many learners stall at concrete levels of thinking. Grosser (2006) showed that such individuals face problems when expected to: (a) construct their own knowledge; (b) formulate their own viewpoint; (c) evaluate, classify, analyze, identify relationships, and draw conclusions; (d) solve problems through logical inquiry and evaluate decision-making; as well as (e) think creatively and critically. Traditional teaching techniques nurture poor critical thinking by emphasizing rote-learning or memorization. Many learners leave school without the ability to solve problems that require critical thinking (Grosser, 2006). This is unfortunate since media literacy requires critical thinking by the consumer. Therefore, educational programs that promote critical thinking may benefit learners by introducing the skills needed to formulate this higher level of cognitive functioning.

The type of learning and critical thinking needed for media literacy is complex and does not develop automatically along with maturation (Ee & Sum, 2005; Gredler, 2012; Grosser, 2006). The development of higher levels of thinking and cognitive growth requires an environment offering mental stimulation for the individual (Gredler, 2012). The ideal learning environment for a child is saturated with information just above her or his level of independent problem solving (Ee & Sum, 2005; Gredler, 2012).

Ee and Sum (2005) explored direct viewing-thinking activity (DVTa) as an approach to enhance students' critical thinking tendencies before, during, and after the viewing of selected television segments. Ee and Sum's study consisted of eighteen Chinese girls, between 14 and 15 years of age, in a traditional English school. Results of this study showed that critical thinking tendencies can be enhanced in an environment that nurtures critique rather than memorization (Ee & Sum, 2005). Ee and Sum support future studies designed to measure DVTa's impact on self-confidence, especially with younger children, which is similar to the design of this study.

How theory of cognitive development relates to proposed study. Vygotsky's theory of cognitive development is useful when designing school curricula to develop critical thinking (Gredler, 2012; Vygotsky & Kozulin, 2011). This is mainly because school curricula are organized so children are provided with experiences in their optimal period or zone of proximal development (ZPD). The ZPD refers to a cognitive developmental range between actual development and possible development (Vygotsky & Kozulin, 2011). Actual development applies to tasks a child can solve independently. Possible development represents tasks solved by a child under the guidance of adults or more intellectual peers. ZPD helps the educator understand what skills have already been accomplished along with what skills are currently maturing.

How research questions relate to the existing theory. The aim of this study was to introduce media literacy skills at an optimal time in the preadolescent girl's cognitive development. Determining whether a preadolescent girl's self-esteem will be

impacted is contingent on the effectiveness of the media literacy program at this optimal time, ZPD. Teaching involves offering assistance at points in ZPD when necessary (Gredler, 2012). Tasks must fall within the ZPD in order for intellectual imitation to occur. If learning begins too early or too late, teaching and learning may be impeded (Vygotsky & Kuzulin, 2011). Groups of “cognitively equivalent” children alone are not capable of promoting their own cognitive growth because cognitive levels are too similar. There must be a difference in cognitive abilities (researcher vs. preadolescent girl) in order for significant cognitive growth to occur (Gredler, 2012). Vygotsky’s cognitive development theory was used as a guide when deciding the age of the participants in the study. In order to ensure effectiveness, cognitive development considerations determined the optimal developmental period for the implementation of media literacy skills.

Literature Review Related to Key Variables

Media Content – Sexualization of Women

In such a media-saturated society, people depend on the media for information, entertainment, and connection to the world (Chang et al., 2011). Various forms of media are readily accessible for societal consumption including news media and books, radio broadcasting and audio formats, film and television, computers and Internet (Tulodzeicki & Grafe, 2012; Temur & Inan, 2012). It seems there is some form of media available for people of every age. Chang et al. (2011) noted that media is embedded in our way of life, because it surrounds us and is always present. Chang et al. also stated that the media have the potential to shape personalities as well as change the way we perceive and

understand reality. While research shows mixed results of the direct effects of media content on viewers, it is believed that at the very least, media functions as a source of information (Linz et al., 1992). Linz, Donnerstein, and Penrod (1988), examined participants' survey responses pre- and post- media exposure to gauge the impact of media content. Results concluded that consumers could potentially become desensitized to the repeated exposure of media content. Desensitization leads to lack of concern and provides indication for society's acceptance of sexualized women in the media.

Media habits reflect norms of the family. Increases in types of media (e.g., print, visual, audio) coupled with the availability of various types of electronic devices to transmit media (e.g., phones, computers), have changed the landscape of family media use (Clark, 2011). Gone are the days when a family owned one television or one radio to experience together at a designated time in the family room. Instead, most bedrooms in America today have a television, a radio, a phone, and oftentimes a computer with Internet connectivity allowing for more private viewing (Mendoza, 2011).

With consumption habits consistently on the rise, it is no surprise that media use by children has been an area of importance for parents and educators since the 1960s (Center for Media Literacy, 2011). Children begin viewing television by age two and have developed viewing habits by age six (Cakir, Kacur, & Aydin, 2011). Statistics such as these are of particular interest because visual media have been shown to be more persuasive than print media (Sharma, 2012). As a result of impact and accessibility, the media have become the primary socializing agent for children in the modern world

(Chang et al., 2011). Thus, adults are interested in understanding how consuming sexualized media content affects preadolescent girls. Researchers indicate this is a valid concern, since sexual content dominates television-programming (Pinkleton et al., 2008). Statistics reveal that adolescents encounter 10,000 to 15,000 sexual references or jokes and nudity instances each year (Pinkleton et al., 2008).

There is growing fear that increased media exposure is one of the reasons children are adopting markers of adult sexuality, for example clothing, makeup, dance, and posture (Kilbourne, 2012; Thompson, 2010). Aside from this external influence, Thompson stated that many adults are bothered by children's increased exposure to sexual content that defines internal self-worth based on narrow standards of physical attractiveness. In the media, physically attractive features are associated with happiness, desirability, and success in life (Yamamiya et al, 2005). Graff et al. (2012) found that constant exposure to women whose defining feature is their sexiness leads to the formation of a cognitive schema that focuses on being sexy and limits the ability to see alternatives. Graff et al. similarly determined that others often view sexualized individuals as incompetent, immoral, and unrespectable. Not only are individuals internalizing negative feelings about themselves, but also internalizing the negative perceptions of others. This is a problem since the internalization of negative messages leads to body dissatisfaction and decreased self-esteem (Graff et al., 2012).

Sexualization and others' perceptions. Sexualization in advertisements increased significantly between 1983 and 2003 (Graff et al., 2012; Kilbourne, 2012).

Although the definition of sexualization is not clearly defined within existing research (Bragg, Buckingham, Russell, & Willett, 2011), scholars agree that current sexual trends in media situate children as innocent victims of adult desire (Bragg et al., 2011; Faulkner, 2010). This type of media representation may alter social interpretations of what it means to be a child and increase vulnerability to sexual predators as well as loss of purity and loss of childhood innocence (Faulkner, 2010; Thompson, 2010).

Sexualized individuals are perceived as incompetent to succeed in masculine-stereotyped domains like intelligence, competence, capability, and determination (Grabe & Hyde, 2009; Graff et al., 2012). Graff et al. (2012) assessed this concern by surveying 162 undergraduates at a liberal arts college in the Midwest. The survey asked participants to look at pictures of a child to determine if sexualized clothing affects ratings of masculine-stereotyped traits along with feminine-stereotyped traits. In this study feminine-stereotyped traits were defined as friendly, nice, moral, and self-respecting. Strengthening the study was the use of same child's head; only the clothing changed in the experiment to control for confounding variables like race and body type. Graff et al. found that others view a child wearing sexualized clothing as less competent, less moral, and less self-respecting.

Graff et al.'s (2012) results demonstrate the relevance of the proposed study and the importance of understanding how adopting adult markers of sexuality can affect the self-esteem of preadolescent girls, from both internal and external influences. Inevitably, preadolescent girls will continue to absorb sexual content from media that frequently

portrays women as less competent sex objects. In a free market focused on profit and consumerism, it is unrealistic to believe that elimination or reduction of harmful media imagery is possible (Chambers & Alexander, 2007). Instead, the introduction of media literacy skills may proactively mitigate the negative effects of consuming sexualized media imagery by increasing preadolescent girls self-esteem.

Self-Esteem and Body-satisfaction

It is no surprise that information consumed from the media can affect us in some way (Chang et al., 2011; Lee, 2010; Sharma, 2012). Whether media content impacts our values, beliefs, or behaviors, it is important to examine how the media may influence not only what we think of others, but also what we think of ourselves as we develop self-esteem. Maslow (1942) defined self-esteem as an evaluation of the self and guides behaviors based on perceived capabilities. Achievements and accomplishments in academic, social, emotional, and physical domains can increase a child's self-esteem (Hosogi et al., 2012). It is important to enhance self-esteem since healthy levels of self-esteem support psychological stability (Hosogi et al., 2012; Johnson, 2011; Racine et al., 2011). Encouraging preadolescent girls to express themselves, build self-esteem, and acquire knowledge and skills is crucial for the development of resiliency and psychological well-being (Hosogi et al., 2012).

Developmental assets like self-esteem and positive body image are needed to foster psychological health as girls transition from childhood to adolescence (Racine et al., 2011), a critical time for identity formation (Bell & Dittmar, 2011). These

developmental assets decline as girls enter adolescence so identifying factors that contribute to this decline are valuable when designing prevention efforts (Racine et al., 2011). Racine et al. (2011) examined media usage as a contributor to this decline. Body dissatisfaction, commitment to physical activity and physical activity were assessed to determine the impact increased media consumption might have on 3rd-5th-grade girls self-esteem. Baseline data were collected from a positive youth development program called *Girls on the Run*, which all 1027 participants were also involved in.

The participants completed a survey to assess media use, physical activity, psychological assets (i.e. self-esteem, body size dissatisfaction, commitment to physical activity), and demographic characteristics. Results of Racine et al. (2011) demonstrated that participants who spent the most time consuming media also had lower self-esteem and decreased commitment to physical activity. This study illustrated that media usage in general can negatively impact self-esteem, but it did not examine what type of media content the participants were consuming regularly. Therefore, linking a specific type of media content to a decline in self-esteem may be the target of future research.

Bell and Dittmar (2001) did just that by examining the type of media being consumed by adolescent girls to determine if one media format is more harmful than the other. Media types were grouped into five categories: Internet, TV, music video, magazines and computer games. One hundred ninety nine adolescent girls completed questionnaires pertaining to media consumption, presence of identification with thin media models, body image, weight-related body dissatisfaction, and appearance

dissatisfaction. Results of this study showed no difference between the type of media consumed and effects on body image and body-satisfaction in adolescent girls. Instead, the study found that girls who compare themselves to media images experienced an increase in negative body image compared to girls who did not engage in social comparison. Acquiring a negative body image from media images occurs as a result of perceived environmental pressure to conform to a culturally-defined body and beauty ideal (Bell & Dittmar, 2011).

The unrealistic and artificial image of female beauty displayed in the media is impossible for the majority of women and girls to achieve (Bell & Dittmar, 2011). The models are thin, tone, curvaceous, with perfect skin, hair, and teeth. Adolescent girls are particularly vulnerable to this unrealistic media ideal, because they are experiencing immense physical and psychological developmental changes during adolescence (Bell & Dittmar, 2011). Breast and hip growth move the adolescent girls body further away from the thin ideal. Developmental changes complicated by the desire for peer acceptance, the desire for physical attractiveness, and need for a sense of belonging, makes the adolescent female population the most vulnerable to this negative media influence (Bell & Dittmar, 2011).

In 2007, the American Psychological Association (APA) assembled a task force and a call for research examining the link between media and the sexualization of girls. The APA task force concluded that there is ample evidence indicating that sexualization has negative effects on women in various domains, including cognitive functioning,

physical and mental health, sexuality and attitudes and beliefs (APA, 2007). Even though most existing research involves college-age women, it is believed that such effects can be generalized to younger adolescents and girls (APA, 2007). The APA defined sexual objectification as an instance when a person is made into a thing for others' sexual use, rather than being seen as a person with independent action and decision-making (APA, 2007).

Grabe and Hyde (2009) responded to the APA's concerns and conducted a study to investigate a link between music television consumption and body-esteem, dieting, depressive symptoms, anxiety, and confidence in math. One hundred ninety-five female adolescents completed computerized questionnaires to measure music television use, self-surveillance, body esteem, current dieting status, depressive symptoms, anxiety, and math confidence. Results showed a significant association between music video consumption and lowered body esteem, dieting, anxiety, and confidence in male achievement domains. Since music videos are saturated with sexualization and objectification, these results are consistent with the proposed study's problem in that consuming sexual content in the media negatively impacts self-esteem.

Constant media exposure to unattainable physical perfection is detrimental to women's eating habits, mood, and self-esteem (Haas et al., 2012; Kilbourne, 2012). Social comparisons with others who are unrealistically perfect can strongly influence how people think and feel about themselves and emotions they experience (Smeesters et al., 2009). Since upward social comparisons threaten self-esteem, women who view thin

ideal images experience lower self-esteem and higher body dissatisfaction than women who view neutral images (Smeesters et al., 2009). Haas et al. (2012) aimed to determine if exposing myths about female media images may mitigate feelings of body dissatisfaction in 160 college women . Data was collected from this sample to determine BMI, self-esteem, and media imagery preference pre- and post- intervention. The intervention focused on exposing advertising techniques to enhance the model's physical appearance. Overall, informing women about what an average woman looks like and various alteration techniques of media images had positive effects on the study participants' body image. Results of this study show promise for single, brief programs aimed at teaching women how to be critical of what they consume in the media. The goal of the proposed study is similar Haas et al.'s study except the target population is preadolescent girls.

When it comes to social interaction, emotional development, and self-esteem, the media have the potential to positively influence children. Johnson (2011) surveyed 38 children, aged six to eight in western Canada, to measure if Internet use (communication, recreation, and information gathering) can predict self-esteem levels in children. Results of this study showed that children who communicate and recreate with peers on the Internet, had higher levels of self-esteem than those who reported they did not have peer interaction. This study consisted of a very small sample size, which should be considered when interpreting results. Also, the researcher measured texting as one form of communication among the children. It has not been shown in the research that many six

to eight year olds use texting regularly; therefore, texting may not be considered a valid measure for this population (Johnson, 2011).

An area still not researched is whether or not the introduction of media literacy skills impacts the self-esteem of preadolescent girls. Since children begin viewing the media in large doses at a young age, it is crucial to instill conscious media habits as early as possible (Temur & Inan, 2012). Children spend such a large part of their day in school, so incorporating media literacy programs into education practices is ideal (Kilbourne, 2012; Thompson, 2010). The introduction of media literacy skills can help to develop critical thinking that directly impact self-esteem. In this study, it was hypothesized that a significant change in self-esteem and body-satisfaction will be noted pre- and post- media literacy skills training in the experimental group.

Media Literacy Skills

According to the National Association for Media Literacy Education (NAMLE), media literacy is defined as the ability to access, analyze, evaluate, and transmit media messages (NAMLE, 2007). To avoid potential negative effects, preadolescent girls must know how to critically analyze sexual media messages. The main principles of media literacy include the following: (a) all media are constructions of reality, (b) the audience negotiates meaning of media content, (c) media have commercial implications, (d) media contain ideological and value messages, (e) media have social and political implications, and (f) form and content are closely related in media (Cakir et al., 2011). It is no surprise that critical thinking skills and media literacy complement each other, since media

literacy cannot develop without critical thinking skills (Chang et al., 2011, Lee, 2010; Temur & Inan, 2012).

Jean Kilbourne (2012) is a pioneer and leading researcher in the field of media literacy. Kilbourne's *Killing Us Softly* video series is among the most popular educational films of all time (Media Education Foundation). This video series calls into question the aim, credibility, and impact sexualized media imagery may have on media-consumers absent critical-viewing skills. Kilbourne considers empowerment to be the foundation of media literacy educational programs. Kilbourne's *Slim Hopes: Advertising and the Obsession with Thinness* video offers an analysis of eating disorders as well as a well-documented critical perspective on the social impact of advertising (JeanKilbourne.com). With increased awareness of the abundance of sexualized women in the media, focus on unrealistic portrayals of beauty, and the impact these images have on the self-esteem of women and girls, Kilbourne believes the general public will feel empowered to think critically about the information disseminated (Media Education Foundation). Empowerment and critical-viewing guided this study and were used to instill healthy media habits in the study's participants.

Kilbourne's work has been utilized to examine the efficacy of media literacy skills at mitigating the negative effects of harmful media. Coughlin and Kalodner (2006) included 92 undergraduate women in a study designed to assess if media literacy training decreases the risk for eating disorders. Participants' eating disorder risk level was determined one week prior to the implementation of two separate media literacy training

sessions and assessed again eight weeks later. The initial media literacy training session consisted of cognitive-behavioral activities, such as critical viewing and discussion of Kilbourne's video *Slim Hopes: Advertising and the Obsession with Thinness*. The second session included a review of the first session as well as interactive discussions focused on how social comparisons can be harmful. Results of this study show that women at high risk for eating disorders experienced a significant reduction in body dissatisfaction, feelings of ineffectiveness, and internalization of social standards of beauty in comparison to the high-risk controls. Women in the low-risk group did not exhibit significant change in any of the domains measured.

Limitations of this study include the inclusion of only Caucasian women enrolled in women's studies courses at the university. Since these individuals are enrolled in women's studies, they may have preconceived ideas about the media effects on women. Including more diversity in regards to race and course enrollment may have provided a stronger case for generalization to the general female population. Studies similar to Coughlin and Kalodner (2006) are needed to examine the value of media literacy training across various populations.

A post-test only designed study by Irving, DuPen, and Berel (1998) was employed to evaluate if media literacy training would affect critical thinking about the media and satisfaction with appearance in 41 high school girls. Again, Kilbourne's video *Slim Hopes: Advertising and the Obsession with Thinness* was utilized to highlight the unrealistic portrayal of thinness and beauty in the media. Results show that even brief

media literacy training can lower perceived realism of the media images and less internalization of the popular standard of beauty. Since a post-test only was used, there was no baseline comparison made within groups, only between groups comparison. It is possible that control and experimental groups differed in level of disturbed eating practices, extent of exposure to the media, or a number of other factors. Similar studies including a pre-test design to obtain baseline measures should be conducted and results analyzed. This study followed a pre- and post- test design to assess the efficacy of media literacy training on preadolescent girls self-esteem and body-satisfaction.

According to Lee (2010), media literacy is vital for interaction with a changing society. Media literacy helps make best use of new technology and fosters critical thinking and interpretation (Chang et al., 2011). To ensure effectiveness, media literacy skills training must not consist of specific, static knowledge that may become obsolete (Chu, 2010). Learners need to be equipped with general skills and capabilities that can be used in all aspects of life (Cakir et al., Chu, 2010). Simply protecting and sheltering preadolescent girls from exposure to sexualized media content is unrealistic since sexual imagery is prominent in all aspects of media (Faulkner, 2010). Preadolescent girls must be prepared for what will be encountered in the media and equipped with skills for critical analysis to mitigate the negative influence of sexual media imagery (Chang et al., 2011; De Abreu, 2010; Faulkner, 2010; Lee, 2010).

Family, school, peer group, and the media transmit messages about weight and appearance to consumers (Sharma, 2012). According to college-aged women, the media

is the most influential at pressuring consumers to strive for physical beauty (Coughlin & Kalodner, 2006). De Abreu (2010) noted that as technology advances, children and teen media usage steadily increases. Temur and Inan (2012) added that escalating concerns and problems arise when every individual is heavily exposed and overloaded with media messages that are neither impartial nor free of ulterior motives. Increased usage may create problems if consumers do not question the credibility of information presented in media (Chu, 2010; Kilbourne, 2012). Sharma (2012) assessed this concern by collecting data from 216 randomly selected 16- and 17-year-old students in both public and private schools in India.

Sharma's study was designed specifically to examine the level of media literacy in adolescents and found, that although 45% of adolescent media consumers are aware that media does not equal reality, 86% are not aware that media outlets have ulterior motives. Sharma found a .05 significant difference in media literacy levels when contrasting public and private schools, with students at private schools showing higher levels of media literacy. This difference was attributed to the parents' educational level, parental intervention in media viewing, and expanded exposure and informal efforts by private institutions to cultivate media awareness. School administrators and teachers interviewed agree that media literacy needs to be incorporated into curricula (Sharma, 2012). However, in this particular study, the instrument used was self-developed by the researcher calling into question the study's methodological soundness; absent tests of reliability and validity, the results should be interpreted with caution.

Moore (2013) found that the majority of young people claim mainstream news is the most credible source of information. Since news and current events connect directly to children's lived experiences, they actively shape their values about the world.

Preadolescent girls turn to media with their needs and interpret media messages against the background of their own knowledge, attitudes, and social conditions (Tulodzieki & Grafe, 2012). By empowering preadolescent girls with the skills needed to cognitively deconstruct sexual media imagery, negative effects like body dissatisfaction and negative self-esteem may decrease (Cakir et al., 2011).

Media literacy at school. When the Internet was first introduced in schools, firewalls were capable of filtering out unwanted information and sites. With social networking and Web 2.0 tools of today, unwanted information and media are spilling over into classrooms through computers and cell phones (De Abreu, 2010). The inclusion of sexualized media imagery in media-driven classroom activities is unavoidable since it dominates commercial marketing and media (Bragg et al., 2011). As a way to protect students, schools currently limit or restrict regular integration of media and technology in the classroom environment (De Abreu, 2010). This restricting behavior has proven to be counterproductive since it tends to put stress on the teacher/student relationship in the classroom when networks are shutdown, social media are forbidden, cellphones are banned, iPods and mp3 players are prohibited, and flash drives are banned due to their virus potential (De Abreu, 2010).

The field of media literacy education is divided into two categories when it comes to media and children: protecting and empowering (De Abreu, 2010). Protectionists strive to shield children from perceived negative media. What ‘could’ be found online or what ‘might’ be discovered often results in total elimination and avoidance to try to ‘protect’ the child. This belief prevents media content discussions, because many media themes are seen as taboo (De Abreu, 2010). De Abreu (2010) noted that fear undermines potential progress in integrating media literacy in the classroom, and avoidance behavior only reinforces fear.

Most educators and parents are protectionists who have limited media knowledge (De Abreu, 2010; Lee, 2010). Researchers are finding that what is needed in the educational classroom are innovative ways to connect teaching, learning, and various forms of literacy (Moore, 2013). Training teachers to (a) incorporate media via inquiry and open questions, (b) involve news and current events, (c) understand teachers’ own values, and (d) introduce an environment supporting open discussion, is considered crucial by educators and media researchers (Moore, 2013). Media literacy fits well with innovative goals and may help buffer the negative effects associated with consuming media without critical analysis (Temur & Inan, 2012).

Currently, preadolescent girls are suffering negative blows to their self-esteem when they are constantly bombarded with messages in the media encouraging increased sexualization and standards of self-worth based on physical attractiveness (Kilbourne,

2012; Thompson, 2010). The absence of media literacy programs in elementary school may be contributing to these negative effects and thus provided support for this study.

On the other side of the spectrum are adults who believe in empowering children. The goal of empowerment in media literacy is to encourage children to view media critically (Media Education Foundation; Sharma, 2012). In order to be successful, this viewing practice needs to include mutual respect and trust so open communication can occur when questions arise (De Abreu, 2010). Chu (2010) surveyed 649 students in 11 secondary schools in Hong Kong who have basically grown up digitally, or immersed in technology their entire lives. Chu was interested in empowering students by finding out what questions these students want to ask about the media.

Findings showed that 23% of the participants raised questions about ethics. Chu (2010) noted that such questions demonstrate participant's strong sense of distrust and existing knowledge of right and wrong in the media. However, Chu was left wondering why the students did not mention the anticipated theme of popular culture. He speculated this is due to the school setting of the experiment. Students may have felt it was more appropriate to discuss ethics as opposed to pop culture while at school (Chu, 2010). Regardless, the study by Chu (2010) supports the notion that when you equip children with media literacy skills, children are able to apply this knowledge. Similarly, the goal of this study was to equip preadolescent girls with media literacy skills which can be applied when consuming sexualized media imagery. It is hypothesized that such skills will positively impact preadolescent girls' levels of self-esteem and body-satisfaction.

There is no doubt that media integration in schools is a difficult discussion topic. With concerns about content exposure and potential risk, it is no surprise that parents and educators are cautious. To be effective and beneficial, educators must approach such difficult discussions with confidence (De Abreu, 2010). Although it seems that it is much easier to ignore controversial topics than to deal with them directly, children are being exposed to controversial topics and harmful media content on a regular basis. Such is the case with sexual media imagery with preadolescent girls experiencing the negative effects on self-esteem. Ignoring the need for media literacy programs is no longer a viable option. Providing a safe environment, with open discussion, just may be the key to incorporating media literacy programs into the educational classroom and positively impacting the self-esteem of preadolescent girls.

Conclusion

In conclusion, Vygotsky's (1978) theory of cognitive development supports the notion that elementary-aged children are capable of acquiring the level of critical cognition required for media literacy activities. This time in a child's life is significant, since research shows children develop media-viewing behaviors by age six (Cakir et al., 2011). Influencing the way media is perceived, understood, and analyzed from the initial development of media-viewing habits can positively impact how information is processed (Cakir et al., 2011). Without media literacy skill training, preadolescent girls are currently internalizing sexual media messages and experiencing problems like decreased feelings of competence, increased focus on appearance, increased body dissatisfaction,

and limited achievement in domains not related to appearance (Graff et al., 2012).

Decreased self-esteem results when preadolescent girls make social comparisons with unrealistic and unhealthy body image ideals displayed in the media (Graff et al., 2012).

Current research explores a variety of media literacy education options but little standardization for approach and application (Pinkleton et al., 2008). Researchers like Pinkleton et al. believe media literacy should focus on one common goal: increased active participation. This comes as no surprise since active learning is the basis of media literacy (Tulodziecki & Grafe, 2012). Active learning is beneficial to train independent and critical media consumers (Lee, 2010). Many professionals believe teachers and parents need to be involved in helping children acquire media literacy skills (Cakir et al., 2011; Chang et al., 2011). Offering a supportive environment and providing preadolescent girls with news and advertising, as well as newspaper and television, can facilitate media literacy skill acquisition and mitigate the negative effects of sexualized media imagery.

Professionals agree that a shift from restrictive beliefs and attitudes to empowerment is needed to keep children actively involved in the media (Mendoza, 2009). Adult involvement in children's media consumption may strengthen children's critical thinking and media literacy skills. Children are already highly involved and consuming media and technology at a growing pace. It only makes sense to incorporate informal and formal ways of learning into children's lives to meet the changing demands of society and buffer potential harmful media effects (Cakir et al., 2011; Chu, 2010;

Sharma, 2012). A buffer such as media literacy may be enough to increase self-esteem in preadolescent girls which is what this study was designed to assess.

Currently, there is no literature available that addresses the need for media literacy to mitigate the negative effects of sexualized media imagery on the self-esteem of preadolescent girls. Results of this study may show support for the regular inclusion of media literacy education in elementary school curricula. The onset of technological advances suggests a need for empowering students through media literacy education (De Abreu, 2010). The next chapter, Chapter 3, will provide information on the methodology and design of this quantitative study.

Chapter 3: Research Method

Introduction

The purpose of this research study was to determine if the introduction of media literacy skills affects the self-esteem and body-satisfaction of preadolescent girls. This chapter consists of a discussion of the methodology and research design. It includes a detailed description of the design, the setting and sample, instrumentation and materials, and the data collection and analysis procedures. I will also describe steps used to protect participants' rights.

Research Design and Rationale

I completed data analysis on existing data that were gathered by the program *Girl Smarts*. Once my proposed study was approved by the Walden University IRB (IRB # 09-22-15-0140688), I collected data on fourteen 5th grade girls, between the ages of 10 and 12, in Virginia for use as a comparison group within the data analysis. The comparison sample contained participants who were of the same age and grade as the experimental group, and who likewise resided in Virginia. The settings of the groups differed in that the experimental group was from an afterschool setting while the comparison group was in a home setting. However, I did not expect the setting to impact the outcome of the study since it was simply a place for the girls to complete the questionnaires. Since the sample consisted of intact groups, this quasi-experimental study had a nonequivalent groups design.

The *Girl Smarts* program collected the set of archival data between February and April of 2015, and I collected the subsequent data for the comparison group data between October 2015 and January 2016. I gather participants for the comparison group in the local community using a snowball sampling strategy, which will be detailed later in this chapter. Adding a comparison group without media literacy training helped to address possible confounding factors such as maturation effects (e.g., natural changes in self-esteem or body-satisfaction over time). Specific procedures for group formation will be explained below. I used a quasi-experimental two-way factorial design to examine the effect of both media literacy training (IV₁) and time of measurement (IV₂) on self-esteem (DV₁) and body-satisfaction (DV₂) in preadolescent girls.

Snowball sampling from local 5th grade girls was the strategy I used to form a comparison group for the analysis of existing data acquired from the *Girl Smarts* program. I chose the *Girl Smarts* program for use in this study because it is an established afterschool program in Virginia that offers a workshop focusing on teaching media literacy skills to 5th grade girls. Additionally, I had to find a way to complete the study without performing the intervention myself because Walden's IRB does not allow students to conduct interventions as part of graduate research studies. I contacted the *Girl Smarts* program in January 2015; further explanation of this process is offered below.

Since both samples were obtained from intact populations, I considered the group assignment to be nonequivalent, and thus I needed to use a quasi-experimental rather than

a true experimental design. Nonequivalent group design is common in social science research when comparing the pre- and post-tests of separate, intact populations, such as the design of this study.

I analyzed the self-esteem and body-satisfaction data for both the media literacy experimental and non-media literacy comparison groups, pre- and post-test. I expected a significant increase in self-esteem and body-satisfaction in the experimental group after receiving media literacy training. Given that the non-media literacy comparison group did not receive media literacy training, I predicted that there would not be a significant change in self-esteem or body-satisfaction.

Time and research constraints for this quasi-experimental study were as follows. First, since I obtained data for the experimental group from the program *Girl Smarts*, I anticipated no time and research constraints in obtaining the dataset. The non-media literacy comparison group sample and data was formulated in the local community. My data collection for the non-media literacy comparison group data followed the same timeframe between pre- and post-test (three weeks) as the experimental group. For the non-media literacy comparison group, I planned and coordinated with the participants' parents time for the self-esteem questionnaires, pre- and post-test. Pre-test-post-test designs are widely used in behavioral sciences research for the purpose of comparing groups and/or measuring change following experimental treatments (Dimitrov & Rumrill, 2003). In this study, an increase in self-esteem and body-satisfaction following media

literacy training may provide support for the implementation of media literacy education in elementary school curricula and more after school programs like *Girl Smarts*.

Methodology

Population and Sampling

The target population included 5th grade girls in Virginia, ranging in age from 10-12 years old. The source of the experimental dataset, the *Girl Smarts* program, originally collected data from participants for studies designed to assess the program's effectiveness. The secondary analysis included the pre- and post- test data of seventy-three 5th graders who completed *Girl Smarts*' after school workshop *When beauty BECOMES the beast!*. My access to this dataset was secured with a signed data use agreement (See Appendix C) and Letter of Cooperation (See Appendix D). Once my study was approved, I obtained the de-identified dataset from the *Girl Smarts* program. Then I made contact (via flyers, social media, and in-person) with the parents of 14 local 5th grade girls who comprised the non-media literacy comparison group. The non-media literacy comparison group included the pre- and post-test data of fourteen 5th graders who did not receive any additional training. Participants for the non-media literacy comparison group were obtained with signed parental consent giving their child permission to complete the study's questionnaire pre- and post-test (See Appendix B). A separate child assent form was signed by the child to ensure they understood the purpose of data collection (See Appendix A).

To maintain confidentiality, Dianna Flett from the *Girl Smarts* program de-identified the experimental dataset and labeled each participant's pre- and post-test data accordingly: school initials–assigned student number–pre (1) or post (2) test. (for example: BES-1-1 for student number one pretest, BES-1-2 for student number one posttest). I coded the non-media literacy comparison group data in a similar fashion except an “X” was used in place of the school initials (for example: X-1-1 for student number one pretest, X-1-2 for student number one posttest).

Power Analysis

In order to estimate an appropriate sample size for the study, I conducted a power analysis using G*Power 3.1.9.2 (Faul, Erdfelder, Buchner, & Lang, 2009). The G*Power analysis revealed that in order to achieve a medium effect size ($f=.25$) with alpha .05 and statistical power of .95 (Cohen, 1992), a minimum of 76 participants were needed for the study. Since I did not know the actual effect size until the analysis was conducted, I used a small to medium effect size as a default value to determine the sample size for the study. Cohen (1992) noted that small and medium effect size is typical in social science research.

Instrumentation

The Piers-Harris Children's Self-Concept Scale, Second Edition (Piers-Harris 2), also known as *The Way I Feel About Myself*, is an updated version of the Piers-Harris First Edition created by Piers and Harris (1986). This questionnaire is a 60-item self-report measure for children and adolescents age 7-18 where respondents indicate whether

each item describes them. The questionnaire consists of a total score and six subscales including (a) physical appearance and attributes, (b) freedom from anxiety, (c) intellectual and school status, (d) behavioral adjustment, (e) happiness and satisfaction, and (f) popularity and two validity scales designed to assess response bias and random responding. To measure any change in self-esteem, I compared the total score, which is a measure of overall self-concept pre- and post-test, between the two groups, one who received the media training via the *Girl Smarts* program and a non-media literacy comparison group. The physical appearance and attributes subscale, which was designed to measure a child's assessment of her physical appearance, was analyzed in both groups to assess a change in body-satisfaction pre- and post- test. The Piers-Harris 2 takes approximately 15 minutes to complete and was standardized on a national sample consisting of 1,387 students aged 7-18. An analysis of internal consistency yielded a Cronbach's of .91 for the total score scale, .81 for the behavioral adjustment scale, .81 for the intellectual and school status scale, .75 for the physical appearance and attributes scale, .81 for the freedom from anxiety scale, .74 for the popularity scale, and .77 for the happiness and satisfaction scale (Piers & Herzberg, 2002).

Test-retest reliability studies were not conducted with the new standardization data, but studies from the earlier scale are acceptable (Piers & Herzberg, 2002). Specifically, researchers using all three measures of reliability assessed the Piers-Harris Children's Self-Concept Scale, First Edition with results indicating that the reliability of the Piers-Harris was around .90 for internal consistency, about .91 for split-half

reliability, and ranged from .69 to .96 for test-retest reliability (Piers & Herzberg, 2002). Platten and Williams (1979 and 1981) reported the Piers-Harris to be stable with reliability coefficients of .65 to .75. Information on the validity (content, criterion-related, and construct) of the Piers-Harris has come from multiple sources, and has compared favorably to similar scales. This was an appropriate tool for this study because it encompasses the age of participants, is easy to use, has a long history of research demonstrating reliability and validity, and assesses constructs of self-esteem and body-satisfaction for use in the study (Piers & Herzberg, 2002). Permission to use the Piers-Harris 2 in research is granted as long as credit is given to the developer, the instrument is used in its entirety, and for intended purposes.

Procedures

This study included 10-12 year old 5th grade girls in Virginia. Only the experimental group archival data was obtained from the program *Girl Smarts* and included a sample of 5th grade girls who participated in the afterschool workshop *When beauty BECOMES the beast!* between February and April, 2015. This data was collected and de-identified by the *Girl Smarts* program director. The non-media literacy comparison group sample also consisted of 10-12 year old 5th grade girls in Virginia. However, these participants did not receive media literacy training between the pre- and post-test. The comparison sample was acquired between October 2015-January 2016 by use of flyers in the community, social media, and in person that allowed interested parents to contact me to have their daughters participate.

Girl Smarts Program. After hearing about the challenges young teenage girls face in middle school, Dianna Flett started *Girl Smarts* in 2009 (Girl Smarts, 2015). *Girl Smarts* is designed to elevate girls' sense of self before they leave elementary school and contains two separate programs. The 4th grade program is “101” and the 5th grade program is “202”. Each program is made up of five workshops that were developed to provide age-appropriate information at a critical time in child development. Some of the workshop topics include body image, bullying, relationships, self-image, leadership, and goal setting (Girl Smarts, 2015). Because the sample of the study is 5th graders, the 202 program is explained further.

The *Girl Smarts* 202 program contains five separate afterschool workshops (202-1, 202-2, 202-3, 202-4, 202-5), *When beauty BECOMES the beast!!* is designated as workshop 202-2. According to the *Girl Smarts* website:

When beauty BECOMES the beast! - This workshop explores beauty and the changing definition of beauty over the years. We talk about building real beauty and how to define what is important in our lives. We explore the impact of photo shopping on the girls' impressions of movie stars and popular figures. Using videos and discussion, we learn to start accepting our own shapes and sizes, introduce the idea of living a healthy lifestyle and send the message: “Pretty is how you look. Beautiful is who you are.” (Girl Smarts, 2015).

Data from the *Girl Smarts* program workshop *When beauty BECOMES the beast!* was used in this study because it directly aligns with the four core concepts of media

literacy education: access, analyze, evaluate, and communicate. 1) In media literacy education, access refers to distinguishing and using appropriate types of media for a variety of purposes (Tulodzieki & Grafe, 2012). The *When beauty BECOMES the beast!* workshop introduces the participants to various forms of media and how beauty is portrayed in different media formats. 2) Analyzing involves thinking about the audience, meaning, and reality of media imagery (NAMLE, 2007). The *When beauty BECOMES the beast!* workshop challenges participants to define beauty and how this definition has changed over the years. 3) In media literacy education, evaluating allows consumers to interpret media imagery against the background of their own knowledge, attitudes, and social conditions (Tulodzieki & Grafe, 2012). Exploring photo shopping techniques in mainstream media allows the participants of the *When beauty BECOMES the beast!* workshop to evaluate unrealistic beauty ideals and how this impacts their perception of their own personal beauty. 4) Communication involves putting what was learned into everyday practice (Cakir et al., 2011). The *Girl Smarts* participants are encouraged to actively construct new messages about beauty from what they learned during the workshop and pass these messages on to others.

Girl Smarts has gained popularity over the years in the area it serves in Virginia. All 5th grade girls at the participating schools are invited to sign up for the *Girls Smarts* 202 afterschool program with information about the program being sent home to the parents with a sign-up form in the girls' backpacks. Each workshop session (90-120 minutes) can accommodate 40 participants, so space is limited and given on a first-come

first-serve basis. The time between each workshop varies, but hovers around three weeks. For example, three weeks after a group completes 202-2, the group then completes 202-3.

In January 2015, I contacted Mrs. Flett and inquired about using her program's archival data for this study. A meeting was arranged between Mrs. Flett and I on February 14, 2015 so the Data Use Agreement could be completed (see Appendix C). Mrs. Flett obtained signed consent forms from the children and parents prior to beginning data collection. An information sheet was provided to the participants and parents detailing data collection and the potential use of data for future research studies. Parents were encouraged to participate in a Q & A with Mrs. Flett in order to make an informed decision about participation. Mrs. Flett administered the pre-tests (Piers-Harris 2 questionnaires) in February and March 2015, and the post-tests (Piers-Harris 2 questionnaires) in March and April 2015 (three weeks after the pre-tests). Once data collection was completed and this study approved, the experimental groups de-identified archival data was acquired for use in this study.

Once the study was approved, local parents of 10-12 year old, 5th grade girls were targeted (social media, flyers, in person contact) to acquire a sample for the non-media literacy comparison group using a snowball sampling method. Interested parents contacted this researcher and were mailed a packet which included the parental consent form, the child assent form, pretest questionnaire, and a pre addressed stamped envelope to mail the completed forms back to this researcher. Three weeks later, this researcher

mailed the participant the posttest questionnaire and a pre addressed stamped envelope. Once the posttest was received, this researcher mailed the participant the incentive that they chose (see consent forms for choices). The purpose of the comparison group was to control for potential confounding variables and bias. Parents who showed interested in having their daughter's participate in the study were encouraged to invite other parents and children who met the study's criteria (5th grade girls from Virginia, ages 10-12). The non-media literacy comparison group data collection occurred from October 2015- January 2016.

As the questionnaires were received, the child was given a code so their information could be de-identified. A master list of the participants names and matching codes was generated and locked away for reference. The code given to the participant was used in place of the child's name on the Piers-Harris Children's Self- Concept Scale 2nd Edition answer sheet in order to maintain confidentiality of the participants. It was assumed that the participants had attained a second grade reading level required to read the assessment. Once the non-media literacy comparison group data was obtained, all evidence that would lead to the participants' identification was shredded to maintain confidentiality, excluding the parental consent form and child assent form.

The participants of the non-media literacy comparison group were given an incentive choice for participation (\$10 cash, \$10 Itunes gift card, \$10 Subway gift card). Just as was the procedure for data collection with the experimental group, once the parent/guardian gives consent for the child participant, the comparison group participants

were asked to give assent for inclusion in the study. If any participant decided they wanted to withdraw from the study, they had the option to do so at any time. If participants decided they did not want to be included in the study, the parent was instructed to inform this researcher so their data could be removed from the data pool prior to submitting the completed post- test questionnaire. Only data from participants who had completed each required aspect of the study were included in the results. A summary was mailed to the non-media literacy comparison group participants detailing the key findings of the data analysis as well as information on media literacy skills training. Dianna Flett of *Girl Smarts* was provided with a summary of the outcomes of the study and she will disseminate the information as appropriate.

Operationalization

media literacy: the ability to access, analyze, evaluate, and transmit media messages (NAMLE, 2007). Data obtained from the *Girl Smarts* workshop *When beauty BECOMES the beast!* is the media literacy training that was used as one of the factors (IV) in the experimental group.

time: the second factor (IV) with two levels: pre-test and post-test, for both experimental and non-media literacy comparison groups.

self-esteem: is an evaluation of the self that guides behaviors based on perceived capabilities (Maslow, 1942). The Piers Harris 2 consists of 60 “yes/no” items (e.g., *I do many bad things, I am well behaved in school*) designed to measure general self-concept and self-esteem. The total raw score, which is determined in

the scoring guidelines of the Piers Harris 2, is converted to a T-score (mean=50, standard deviation=10) and percentile rank for each participant. Total Scores were compared between groups to indicate a potential significant change in self-esteem pre- and post- test.

body-satisfaction: is a self evaluation of one's body and an important source of self-esteem. (Smeesters et al., 2009). The Piers Harris 2 consists of 60 "yes/no" items (e.g., *I do many bad things, I am well behaved in school*) designed to measure general self-concept and self-esteem. Domain scales can be analyzed collectively or individually to measure satisfaction with personal appearance. The total raw score on the physical appearance and attributes subscale will be converted to a T-score (mean=50, standard deviation=10) and percentile rank for each participant. Individual subscales will be analyzed to identify significance. Subscale pre- and post- test scores was compared to identify a change in body-satisfaction.

Data analysis plan

SPSS version 21.0 was used to analyze the data using a 2-way mixed-model factorial ANOVA. Although the 2 x 2 factorial analysis included tests of the main effects of each factor, the hypotheses were specifically focused on the interaction. Results were interpreted at $p < .05$. Cleaning and screening of data included a thorough inspection of codes and values to ensure accuracy of input into SPSS.

The research questions and hypotheses are as follows:

RQ1: There will be a significant interaction between literacy group and time of measurement on self-esteem such that those in the media literacy group will have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_0 : Preadolescent girls in the media literacy group will not have higher self esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_A : Preadolescent girls in the media literacy group will have higher self esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

RQ2: There will be a significant interaction between literacy group and time of measurement on body-satisfaction such that those in the media literacy group will have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_0 : Preadolescent girls in the media literacy group will not have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

H_A : Preadolescent girls in the media literacy group will have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

A 2-way mixed-model factorial ANOVA was conducted to analyze student scores on the Piers Harris-2 Self-Concept Scale. The dependent variables were self-esteem and body-satisfaction, while the independent variables were media literacy education and time. The between-subjects factor was the literacy groups and the within-subjects factor was the time of measurement variable (pre, post). Descriptive statistics were used to summarize, organize, and simplify collected data. The F-ratio using a mixed-model ANOVA with both within and between factors determined if there was a significant difference between the groups with respect to their mean difference scores. If the F-ratio was significant, Tukey's HSD post-hoc comparison would have been performed to investigate the expected significant interaction effect. The same procedure as mentioned above was followed for the physical appearance and attributes subscale scores on the Piers Harris-2 Self-Concept Scale.

Threats to Validity

When a pre-test is used, consideration must be given to possible interaction and sensitization to the material to be presented. However, unless novel or highly motivating, a pre-test is not generally considered a large threat to external validity (Dimitrov & Rumrill, 2003). Time between administration of the pre-test and post-test was three weeks in order to match the time between the pre- and post- tests of the experimental

group. A follow up session offering media literacy skills training will be offered to the non-media literacy comparison group. Because the experimental group participants are unknown to me and consists of archival data, a follow up session will not be offered concerning the results of this research. However, the results of the study will be provided to Dianna Flett of Girl Smarts and she can disseminate the results as appropriate.

Problems with internal validity surface in nonrandomized experiments if there is a substantial difference between pre-test scores for the experimental and non-media literacy comparison groups. When this happens, different scores between pre- and post- tests cannot necessarily be attributed to the media literacy skills training compared to not receiving the training. Substantial differences among the pre-test scores can increase a ceiling effect, which would restrict the possibility of gain for higher scoring students in comparison to lower scoring students (Heiman, 1996).

Ethical Procedures

The experimental group was obtained from the program *Girls Smarts* (See Appendix B for Data Use Agreement). Since the participants of the study are children, the parents must give consent for each child to participate in the non-media literacy comparison group along with assent given by the child participants. Consent forms included a brief description of the study's purpose and assent for the children to agree to the data collection (See Appendix A). Non-media literacy comparison group data collection occurred during an arranged time with the study's participants and their parents. Each child's information was kept confidential and used for purposes related to

the study only. Anyone who did not want to participate in the study was not penalized and could withdraw at any time.

The institutional review board (IRB) at Walden University will review and approve the proposed study based on the ethical soundness of procedures. Once the data needed for this research study are obtained, all evidence that would lead to the participants' identification will be shredded to maintain confidentiality, excluding the parental consent form. Parental consent forms will be destroyed after five years.

Summary

This chapter consisted of a detailed description of the design and methodology of this study. This research study assessed the effectiveness of media literacy training at increasing preadolescent girls' self-esteem and body-satisfaction. With this quasi-experimental design, self-esteem was expected to increase following media literacy skills training. Chapter 4 will provide insight into the data and results of the study.

Chapter 4: Results

Introduction

The purpose of this research study was to determine if the introduction of media literacy skills affects the self-esteem and body-satisfaction of preadolescent 5th grade girls enrolled in Virginia public schools. I used the research questions to determine if there was a significant interaction between literacy group participation and time of measurement on (a) self-esteem and (b) body-satisfaction, such that those in the media literacy group have higher self-esteem/body-satisfaction at post-test compared to the (a) media literacy group pre-test, (b) non-media literacy comparison group pre-test, and the (c) non-media literacy comparison group post-test. I hypothesized that participants in the media literacy group will have higher self-esteem and body-satisfaction at post-test compared to the media literacy group pre-test, the non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test. Chapter 4 includes information on data collection, results, and answers to research questions.

Data Collection

The *Girl Smarts* program collected data for the media literacy group between February 2015 and April 2015. The media literacy group sample consisted of Virginia public school 5th grade girls, aged 10-12, enrolled in the *Girl Smarts* program who participated in the after school workshop *When beauty BECOMES the beast!*. Dianna Flett, the head of the *Girl Smarts* program, collected the media literacy group data and my access to this dataset was granted with a signed data use agreement (See Appendix C)

and letter of cooperation (See Appendix D). I obtained consent for inclusion in this study from the parents and the participants in the comparison group prior to data collection. Response rates for the media literacy group were 100% for the 97 girls who were included in data collection. I only used the data of 73 respondents in the media literacy group sample for the data analysis because I determined that 25 records were invalid (e.g. too many missed items, validity check determined inconsistent response style, missing post-test).

I collected data for the non-media literacy comparison group between October, 2015 and January, 2016. The non-media literacy comparison group consisted of Virginia public school 5th grade girls, aged 10-12. The main difference between the media literacy group and the non-media literacy group was the presence of media literacy training occurring between pre- and post-test data collection. The non-media literacy comparison group was recruited by invitations posted on social media and local community sites (e.g. Facebook, Nextdoor) targeting parents of 5th grade girls, as well as snowball sampling from participants. Response rates were approximately 75% for the non-media literacy comparison group. Twenty packets were distributed to those who responded to recruitment invitations. Initial packets included a parental consent form, child assent form, pre-test (Piers-Harris 2), and an addressed, stamped envelope to return the completed items via United States Postal Service.

Three weeks after participants received the initial pre-test, I mailed participants the Piers-Harris 2 (post-test) and an addressed, stamped envelope to be completed and

returned once. Fifteen packets were completed and returned, with 14 of 15 determined to be valid. I determined validity the same way as with the media literacy group (e.g. too many missed items, validity check determined inconsistent response style, missing post-test). I consider this study's sample, including both the media literacy and the non-media literacy comparison groups, to be representative of the population of 5th grade girls enrolled in Virginia public schools.

I acquired the media literacy group's de-identified datasets from Dianna Flett once receiving IRB approval in September 2015. Initially, I had proposed collecting the non-media literacy comparison group data in a large group setting over two separate sessions (pre and post). However, this strategy was changed during the IRB process and the comparison group data were collected on an individual basis through the United States Postal Service or in-person collection.

Once the Piers-Harris 2 datasets were coded and scored, I used the normalized *T*-scores (raw score conversions) in this analysis. To construct these scores, the original distribution of Piers-Harris 2 raw scores is transformed so that it approximates a normal distribution (Piers and Herzberg, 2002). The normalized raw scores are converted to *T* scores, which have a mean of 50 and a standard deviation of 10. Normalized *T* scores make it possible to determine where an individual child's Piers-Harris 2 scores stood in relation to those of the typical child in the standardization sample. *T* scores are not *t* tests, but instead represent the scoring procedure of the Piers Harris 2 for interpreting the Total Score (TOT), which is a measure of overall self-concept, and the Physical

Appearance and Attributes Subscale (PHY), which is used to measure a child's assessment of her physical appearance. In general, T scores between 45 T and 55 T on the Piers-Harris 2 are classified in the average range.

Descriptive Statistics

Table 1 shows mean T scores and standard deviations for the Total Score (TOT) and Physical Attributes Scale (PHY) on the Piers-Harris 2. Higher T scores reflect a more positive self-esteem. In order to see the difference between the means, I separated the Piers-Harris 2 scores by time of measurement (pre/post test) for each group's score (TOT/PHY).

Table 1

Number, Mean, and Standard Deviation for Piers-Harris 2 Variables

Scale	Time of Measurement	Group			
		Non-Media Literacy (N=14)		Media Literacy (N=73)	
		M	SD	M	SD
TOT	Pre-test	51.29	12.54	54.96	8.43
	Post-test	53.64	13.61	57.86	8.56
PHY	Pre-test	50.79	9.89	53.60	8.05
	Post-test	51.64	10.25	56.18	7.62

Data Analysis

In order to answer the research questions, I tested two hypotheses to determine if the post-test of the media literacy group produced the highest mean score for (a) total self-esteem (TOT), and (b) body-satisfaction (PHY). When collecting and analyzing the data, I reviewed guidelines for how to account for missing items, inconsistent responding,

and response bias (outlined in the Piers-Harris 2 manual) to determine the validity of each dataset (Piers and Herzberg, 2002). If a Piers-Harris 2 dataset contained more than seven missed items, four or more inconsistent responses, or a response bias T score of 40 or more (*yea saying* or *nay saying* response tendencies), I excluded the dataset from the analysis. For this reason, I excluded 25 of the media literacy group datasets and one of the non-media literacy comparison group datasets. I thus used a total of 87 valid datasets in the analysis.

Dependent Variable 1: Self-Esteem

RQ1: There will be a significant interaction between literacy group and time of measurement on self-esteem such that those in the media literacy group will have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy group pre-test, and the non-media literacy comparison group post-test.

Null Hypothesis (H_01): Preadolescent girls in the media literacy group will not have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

Alternative Hypothesis (H_A1): Preadolescent girls in the media literacy group will have higher self-esteem at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

I used a two-way, mixed-model factorial ANOVA to examine changes in self-esteem over time between those who received media literacy and those who did not. The time of measurement (pre versus post) was the within-subjects factor, and the presence of media literacy training (received versus not received) was the between-subjects factor in the mixed ANOVA. The dependent variable was self-esteem.

An effect size of .024 indicated a small main effect between the self-esteem scores dependent on group, media literacy and non-media literacy (Cohen, 1988): $F(1, 173) = 4.19, p = .042$. In other words, self-esteem was significantly higher in the media literacy group in comparison to the non-media literacy group, and 2.4% of the change in self-esteem can be accounted for by the presence of media literacy training. The results were not significant when measuring the interaction between the independent variables (time and group) on the dependent variable self-esteem: $F(1, 173) = .020, p = .887$, partial $n^2 = .000$. Thus, the results indicated no significant differences in the effect of time (pre-test vs. post-test) on the self-esteem scores for either group (non-media literacy vs. media literacy). Additionally, the main effect of time on self-esteem was not significant: $F(1, 173) = 1.86, p = .174, n^2 = .011$. The results of the two-way ANOVA for self-esteem (pre-test vs. post-test) by group (non-media literacy vs. media literacy) are presented in Table 2. Means and standard deviations for self-esteem scores (pre-test vs. post-test) by group are presented in Table 3.

Table 2

Two-Way ANOVA for Self-Esteem (Pre-Test vs. Post-Test) by Group (Non-Media Literacy vs. Media Literacy)

Source	SS	df	MS	F	p	Partial η^2
Group	365.952	1	365.95	4.193	.042	.024
Time	162.585	1	162.58	1.863	.174	.011
Time*Group	1.757	1	1.757	.020	.887	.000

Table 3

Means and Standard Deviations for Self-Esteem (Pre-Test vs. Post-Test) by Group (Non-Media Literacy vs. Media Literacy)

	Group				Total (N=174)	
	Non-Media Literacy (N=28)	Media Literacy (N=146)	Mean	Std. Deviation	Mean	Std. Deviation
Time of Measurement	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Pre-test (N=87)	51.29	12.54	54.96	8.43	54.37	9.22
Post-test (N=87)	53.64	13.61	57.86	8.56	57.18	9.58
Total (N=174)	52.46	12.90	56.41	8.59	55.78	9.48

Although the results of the time and group interaction were not statistically significant, the means of self-esteem appear to be in the hypothesized direction at post-test (non-media literacy group, 53.64; media literacy group, 57.86) compared to the lower scores at pre-test (non-media literacy group, 51.29; media literacy group, 54.96) for both groups.

Dependent variable 2: Body-satisfaction

RQ2: There will be a significant interaction between literacy group and time of measurement on body-satisfaction such that those in the media literacy group will have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy group pre-test, and the non-media literacy comparison group post-test.

Null Hypothesis (H_02): Preadolescent girls in the media literacy group will not have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

Alternative Hypothesis (H_A2): Preadolescent girls in the media literacy group will have higher body-satisfaction at post-test compared to the media literacy group pre-test, non-media literacy comparison group pre-test, and the non-media literacy comparison group post-test.

A two-way, mixed-model factorial ANOVA was used to examine changes in body-satisfaction over time between those who received media literacy and those who did not. The time of measurement (pre versus post) was the within-subjects factor and the presence of media literacy training (received versus not received) was the between-subjects factor in the mixed ANOVA. The dependent variable was body-satisfaction while the independent variables were time and media literacy training.

An effect size of .027 indicated a small main effect between the body-satisfaction scores dependent on group, media literacy and non-media literacy (Cohen, 1988): $F(1,$

173) = 4.70, $p = .032$. In other words, body-satisfaction was significantly higher in the media literacy group in comparison to the non-media literacy group and 2.7% of the change in body-satisfaction can be accounted for by the presence of media literacy training. The results were not significant when measuring the interaction between the independent variables (time and group) on the dependent variable body-satisfaction: $F(1, 173) = .257, p = .613, \text{partial } n^2 = .002$. Thus, the results indicated no significant differences in the effect of time (pre-test vs. post-test) on the body-satisfaction scores for either group (Non-Media Literacy vs. Media Literacy). Additionally, the main effect of time on body-satisfaction was not significant: $F(1, 173) = 1.02, p = .313, n^2 = .006$. The results of the two-way ANOVA for body-satisfaction (pre-test vs. post-test) by group (non-media literacy vs. media literacy) are presented in Table 4. Means and standard deviations for body-satisfaction scores (pre-test vs. post-test) by group (non-media literacy vs. media literacy) are presented in Table 5.

Table 4

Two-Way ANOVA for Body-Satisfaction (Pre-Test vs. Post-Test) by Group (Non-Media Literacy vs. Media Literacy)

Source	SS	df	MS	F	p	Partial n^2
Group	317.499	1	317.49	4.698	.032	.027
Time	69.202	1	69.202	1.024	.313	.006
Time*Group	17.340	1	17.340	.257	.613	.002

Table 5

Means and Standard Deviations for Body-Satisfaction (Pre-Test vs. Post-Test) by Group (Non-Media Literacy vs. Media Literacy)

	Group				Total (N=174)	
	Non-Media Literacy (N=28)		Media Literacy (N=146)			
Time of Measurement	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Pre-test (N=87)	50.79	9.89	53.60	8.05	53.15	8.38
Post-test (N=87)	51.64	10.25	56.18	7.62	55.45	8.21
Total (N=174)	51.21	9.90	54.89	7.92	54.30	8.35

Although the results of the time and group interaction were not statistically significant, the means of body-satisfaction appear to be in the hypothesized direction at post-test (Non-Media Literacy group 51.64, Media Literacy group 56.18) compared to the lower scores at pre-test (Non-Media Literacy group 50.79, Media Literacy group 53.60) for both groups.

Summary

The results of the analyses indicated that significant differences in self-esteem and body-satisfaction were present between groups. The results did not produce significant results at the time of measurement, or when examining the interaction between group and time of measurement of either self-esteem or body-satisfaction. The Media Literacy group did receive higher self-esteem and body-satisfaction scores overall. However, since the hypotheses are specifically focused on the interaction, we fail to reject the null hypotheses in both research questions.

In Chapter 5, findings of this study and the conclusions drawn will be discussed. Limitations of the study and recommendations for future research on boosting preadolescent girls self-esteem and body-satisfaction will also be discussed. The chapter will conclude with a discussion of the implications of this study for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quasi-experimental pre-post-test research study was to determine if the introduction of media literacy skills (IV₁) and time of measurement (IV₂) affects the self-esteem (DV₁) and/or body-satisfaction (DV₂) of preadolescent 5th grade girls enrolled in Virginia public schools. The reason for conducting this study was to determine if media literacy training can mitigate the negative effects of sexualization of women in the media and positively impact self-esteem and body-satisfaction prior to the decline in both that typically occurs during the transition to adolescence (APA, 2007).

Key findings of the study show there was not a significant interaction between literacy group and time of measurement on self-esteem and/or body-satisfaction; preadolescent girls in the media literacy group did not have significantly higher self-esteem and/or body-satisfaction at post-test. Therefore, I did not reject the null hypotheses. When looking further at the main effects of the between-groups analysis, I found that the media literacy group reported significantly higher self-esteem and body-satisfaction scores, when compared to the non-media literacy control group. The main effects of the within-groups analysis (time of measurement) did not produce significantly higher self-esteem and/or body-satisfaction. In this chapter, I explore the findings, limitations, recommendations, and implications of this study.

Interpretation of the Findings

The literature shows that children are consuming media and technology at a growing pace (De Abreu, 2010), with television viewing habits developed by age 6 (Cakir, Kacur, & Aydin, 2011). In the field of technology, advances allow for flexible production, distribution, and consumption of information disseminated by the media (Chu, 2010). Such flexibility brings a high exposure potential to what many believe to be “harmful” media imagery. Many are concerned with children’s increased exposure to sexual imagery and defining self-worth based on narrow standards of physical attractiveness (Thompson, 2010).

In 2007, the APA task force initiated a call for research examining the link between media and the sexualization of girls. Since then, researchers have confirmed the impact media sexualization has on women and girls, from adolescence to adulthood, and have explored how media literacy education might mitigate the negative effects of media sexualization (Cakir, Kacur, & Aydin, 2011; Graff et al., 2012; Haas, Pawlow, Pettibone, & Segrist, 2012; Halliwell et al., 2011; Sharma, 2012; Temur & Inan, 2012). However, there is a gap in the literature regarding whether media literacy skills will neutralize this negative impact in preadolescent girls.

Media literacy is defined as the ability to access, analyze, evaluate, and transmit media messages (NAMLE, 2007). Because media constructs reality in a way that has ideological, moral, and commercial implications, increased active participation in processing media content allows the audience to think more critically about media

imagery (Lee, 2010). A sample of participants enrolled in the *Girl Smarts* program workshop *When beauty BECOMES the beast!* between February and April 2015 made up the media literacy pre- and post- test treatment groups. This workshop aligned directly with my study's research questions, given that it was structured around the four core concepts of media literacy education: access, analyze, evaluate, and communicate. The non-media literacy pre- and post-test control groups consisted of participants who were not involved in the *Girl Smarts* program.

All of the study's 87 participants were girls, aged 10-12, enrolled in 5th grade in Virginia public schools, who completed the Piers-Harris 2 twice to provide pre- and post-test measures. Piers-Harris 2 data were scored and analyzed to discern the main effects of literacy group (media literacy or non-media literacy) and time of measurement (pre- and post-test), as well as the interaction between literacy group and time of measurement on two dependent variables (self-esteem and body-satisfaction). I did not find results to be significant for the interaction of literacy group and time, or for the main effect of time of measurement, for either of the dependent variables. The media literacy group produced significantly higher scores for both self-esteem and body-satisfaction when compared to the non-media literacy group (between-groups main effect). This may be due to the natural influence of being enrolled in an after-school workshop, which I explain further in the limitations section below.

Even though I failed to reject the null hypotheses (i.e., the media literacy group will result in significantly higher self-esteem and/or body-satisfaction at post- test), the

results may provide some insight into the potential benefits of incorporating media literacy training into the lives of preadolescent girls. In a similar study, Halliwell et al. (2011) measured the presence of significant differences between the experimental and control group's body-satisfaction and self-esteem after viewing a short intervention video. Girls aged 10-13 who viewed the brief video that called into question idealized media images, had higher levels of self-esteem and body-satisfaction. Halliwell et al. concluded that even brief interventions may prevent girls from making damaging social comparisons with idealized media models. Although the main effects of the within-groups analysis were not statistically significant, both self-esteem and body-satisfaction measures were higher at post-test, similar to previous studies measuring the effects of brief interventions (Halliwell et al., 2011).

The total benefits of brief media literacy programs may be small and difficult to measure due to other real-life factors. For example, media exposure in daily life, averaging 2-3 hours per day (Tiggemann & Miller, 2010), is considerable and the effects may be cumulative (Yamamiya et al., 2005). Since children consume media messages uncritically, the internalized messages have the potential to influence how they think, act, and feel (Chang, et al., 2011). Media literacy skills may enable preadolescents to resist social comparisons that negatively impact their self-esteem and body-satisfaction. Questioning and evaluating media content on a regular basis can potentially mitigate the negative cumulative effects. The positive influence of brief media literacy interventions may be difficult to measure, then, because these skills are meant to be incorporated into

daily life in order to mitigate the negative impact of idealized beauty images gradually over time.

As I showed in Table 1, the means for both self-esteem and body-satisfaction for the media literacy treatment group were relatively higher compared to the non-media literacy control group. Simply being enrolled in an after school program with peers may have made the girls in the media literacy group feel better about themselves, and thus may have positively impacted the way they answered the items on the Piers-Harris 2 questionnaire. Additionally, although the results of the time and group interaction were not statistically significant, the means for both (a) self-esteem, and (b) body-satisfaction appear to be increasing depending on the time of measurement (see Tables 3 and 5). This may be due to the test/retest of the Piers-Harris 2 and the participants' familiarity with the questionnaire since there were only three weeks between test and retest.

As previously stated, studies have shown that media literacy is an effective way to mitigate the negative effects sexualization in media has on self-esteem and body-satisfaction in girls (Haas, Pawlow, Pettibone, & Segrist, 2012; Halliwell et al., 2011). However, such studies have included girls aged adolescent to adult. More research should be conducted to explore the impact media literacy may have on the self-esteem and body-satisfaction of preadolescent girls.

Limitations of the Study

The sample, research design, self-selection bias, and accuracy of self-report measures represent the limitations of the study. The experimental group sample

consisted of 5th grade girls in Virginia who attended the *Girl Smarts* afterschool program. The non-media literacy control group consisted of 5th grade girls who did not attend the *Girl Smarts* afterschool program. Inclusion in the study was based on participation in the afterschool program (experimental group) or the parents' interest in the study (control group). Girls who did not fall into one of these two categories were not aware of the study and therefore had no chance to participate. As such, generalizability of these findings is somewhat limited, and studies utilizing different ways to acquire samples are encouraged (e.g., across geographic locations). The 87-participant sample is small and may not adequately represent 5th graders in other public schools or outside of the state of Virginia.

The research design presents the second limitation of the study, and there may have been confounding variables. For example, within the 3-week period of the study, media literacy skills, along with other variables such as peer interaction, media involvement, or family involvement, may have affected self-esteem levels of the participants in both groups. However, including a media literacy and non-media literacy control group was an attempt to mitigate some of these concerns since participants in both groups would potentially have been influenced by these naturally occurring events independent of literacy group participation or time of measurement. Future research studies should lengthen the time period of the study in order to have a clearer picture of the impact of media literacy on preadolescent girls' self-esteem and body-satisfaction.

Additionally, the girls enrolled in the afterschool program had significantly higher self-esteem than the non-media literacy comparison group, regardless of the time in measurement. Thus detecting any additional differences was difficult in this research design and may be due to self-selection bias. Therefore, future research should work to randomly assign people to literacy conditions in order to more effectively test if the intervention is truly effective or if those who choose or are chosen to participate in the intervention are simply more confident individuals.

Self-report measures require participants' honest self-appraisal. For this reason, the first step in interpreting the Piers-Harris 2 questionnaires was to determine whether or not the responses of this study's participants were valid indicators of the child's self-evaluation (Piers & Herzberg, 2002). Four major types of validity issues were taken into account: 1) exaggeration, 2) response bias, 3) random responding, and 4) moderator variables. First, exaggeration refers to children's tendency to distort their responses in a socially desirable direction. The Piers-Harris 2 Total (TOT) score can provide some information about positive response distortion. Next, response bias refers to a tendency to agree or disagree with test items and is measured by the Response Bias (RES) index. Third, the Inconsistent Responding (INC) index was developed to help detect random responding patterns. Finally, a demographically diverse standardization sample permitted empirical investigation of the effects of several potential moderator variables, including age, sex, ethnicity socioeconomic status, and U.S. geographic region. Only

participant questionnaires that passed each of these validity checks were used in this study's analyses.

Recommendations

Future recommendations for data collection could include utilizing a larger (more equivalent) sample size, particularly for the non-media literacy control group. There was a much larger sample of media literacy treatment-group participants versus non-media literacy control group participants. Participants who are randomly assigned to different conditions may produce more accurate results. The goal of random assignment is to distribute the participant characteristics evenly between the groups in order to decrease the influence of environmental variables (Gravetter & Wallnau, 2007). Although it is impossible to measure the amount of negative media content (environmental variables) the participants were exposed to before or during the study's three-week period, it may be beneficial to expose participants to objectionable media in future studies. This type of exposure could occur prior to the post- test measure to see if the objectionable media affects the two groups differently. It would be hypothesized that the media literacy treatment-group would experience less negative impact compared to the non-media literacy control-group because they would have been introduced to media-specific coping skills. Measuring the implementation of media-specific coping skills by the literacy group may be a more efficient way to measure the value of programs like *Girl Smarts*.

Additionally, finding ways to measure the stability of the media literacy group's self-esteem and body-satisfaction over time may be helpful in future studies. Because the

current study specifically looked at the change in dependent variables over a short, three-week period, potential long-term effects of the media literacy training could not be assessed.

Implications

Because children are exposed to media steadily by the time they are elementary-school age, cultivating media literacy habits to neutralize potentially negative effects preoccupies the minds of parents, educators, and researchers (Chang et al., 2011). Problems arise when children are provided with ready access to media and adults are expected to monitor what media content is consumed. Even though parents are responsible for purchasing technology, they are often unfamiliar with its use, capabilities, and influence, which can impede their monitoring of undesirable material like sexualized imagery (De Abreu, 2010). It is virtually impossible for parents to monitor all media consumed by their children since sexualized imagery pervades commercials, programming for children, supermarket aisles, clothing, etc. (Chu, 2010). Researchers indicate that sexual imagery dominates television-programming (Pinkleton, Austin, Cohen, Chen, & Fitzgerald, 2008). Therefore, it is believed that teaching children to think critically about media content is necessary and is, understandably, the foundation of media literacy education (De Abreu, 2010) and essential for social change.

The results of this study provide some insight into the potential effectiveness of media literacy skills in neutralizing the negative impact of sexualized media imagery on preadolescent girls' self-esteem and body-satisfaction. Social change will be achieved

once preadolescent girls learn to think critically in order to understand that comparing oneself to unrealistic body ideals can be detrimental to how they feel about themselves and their long-term psychological health. It can be beneficial to include media literacy in elementary school curricula and the lives of preadolescent girls through afterschool workshops, increased teacher education and training on the benefits of regular media literacy instruction (Tulodzieki & Grafe, 2012). Without a curriculum that provides insight on how to critique mass media images, students may be more vulnerable to corporate messages designed to increase sales profit by playing upon personal insecurities about one's appearance (Chambers & Alexander, 2007). In order to be effective, intervention must start while children are elementary school-age, prior to the formation of media consumption habits, a time when critical thinking and views of self may be influenced the most (De Abreu, 2010).

Conclusion

Developing positive self-esteem and body-satisfaction at a young age can be vital to promoting psychological health throughout life (Grabe & Hyde, 2009; Haas, Pawlow, Pettibone, & Segrist, 2012). As a social society, we learn about norms, expectations, and oftentimes happiness from one another (Festinger, 1954; Smeesters et al., 2009). As a result, we utilize self-evaluation to compare our abilities to others in order to maintain a self-view (Festinger, 1954). This self-view can become skewed if the individual being compared possesses unrealistic abilities or characteristics (Smeesters et al., 2009). Such is the case when girls compare their own bodies to body ideals displayed in media, since

the mass media is the single biggest promoter of the unrealistic and artificial thin ideal (Bell & Dittmar, 2011).

Once a social comparison is made to unrealistic body ideals, there is an increased potential to internalize negative cognitive messages about oneself since cognition is what makes meaning of social experience (Tudge & Winterhoff, 1993). Over time, social comparison and the internalization of sexual media images by girls may lead to problems like decreased feelings of competence, increased focus on appearance, increased body dissatisfaction, and limited achievement in domains not related to appearance (Grabe & Hyde, 2009; Graff, Murnen, & Smolak, 2012).

Developing and implementing intervention programs designed to help young girls acquire a positive self-view and navigate unrealistic media messages is paramount to promoting psychological health (Sharma, 2012). Programs and curricula that incorporate the fundamentals of media literacy will empower young people to consume media content critically and effectively (Sharma, 2012). Even brief interventions may be effective at disrupting the upward social comparison that many young girls make when viewing idealized beauty images (Halliwell et al., 2011). Although the media literacy group in this study did not experience significantly higher self-esteem and body-satisfaction than the control group as hypothesized, future studies examining the benefits of programs grounded in media literacy education may be beneficial to positively impacting preadolescent girls' self-view. At this time, it is unclear if similar brief interventions will have positive impact or lasting power beyond a study's duration.

However, research looking at the effectiveness of imbedding media literacy into elementary school curricula may be what is needed for long-term positive effects on self-esteem and body-satisfaction (Tulodzieki & Grafe, 2012).

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