

BODY APPRECIATION, SELF-ESTEEM, AND SOCIAL MEDIA ENGAGEMENT

By

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Liberty University

A Dissertation Presented in Partial Fulfillment

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## ABSTRACT

Dissatisfaction with one's body and low self-esteem are significant issues that many women experience throughout their lives. Researchers have substantiated the relationship between self-esteem and body appreciation, with limited and conflicting correlations reported between body appreciation and engagement with social media. Accordingly, further research was needed to develop a more comprehensive understanding of the ways that self-esteem and engagement with social media may affect body appreciation. The purpose of this study was to evaluate the relationship between women's self-reported social media engagement, body appreciation, and self-esteem. This study was guided by three research questions and results were interpreted through the lenses of sociocultural theory and social comparison theory. This quantitative examination followed a correlational design. The sample consisted of 112 female participants between the ages of 18 and 45, who were recruited via Survey Monkey. The online survey consisted of the Body Appreciation Scale-2, the Rosenberg Self-Esteem Scale, and a demographic questionnaire. Results of the two Pearson correlations and a moderation analysis revealed no significant relationships between body appreciation, self-esteem, and social media engagement. Implications of these findings are discussed.

*Keywords:* media, body image, social media, self-esteem, social comparison.

**Dedication**

To my mother, father and children, thank you for loving me, encouraging me and growing with me.

### **Acknowledgments**

Thank you to my chair Dr. Angel Golson for continuing to support me throughout this process, to my coach Dr. Jessica Bell for never letting me give up and to Kristen Dang for all of her effort to perfect this very important piece of work. Thank you to all of the women in this study that were brave enough to share their truth. Thank you!

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## CHAPTER ONE: INTRODUCTION

### Overview

This chapter provides an introduction to the current research. Information pertaining to the variables that have an effect on body image, such as self-esteem and social media engagement are introduced. The gap in research is discussed, along with the purpose, research questions, and key terms.

### Background

The ways individuals define themselves, in terms of first-person bodily perspectives, strongly influence their self-perceptions (Gibbs, 2006). Body dissatisfaction is the result of discrepancies between individuals' perceived and ideal selves (Wykes & Gunter, 2005). The ideal self often reflects internal or societal ideals of beauty. Throughout history, cultural idealizations of feminine beauty have existed, whether natural or unnatural. While the *ideal* woman was once knowable and somewhat stable, she is now dynamic and elusive (Wykes & Gunter, 2005).

Body shapes and sizes have important implications for attractiveness (Wykes & Gunter, 2005). The significance of the body shape lies in its influence upon the ways others judge one's attractiveness, and the ways individuals perceive themselves (Wykes & Gunter, 2005). The degree to which individuals are satisfied with their bodies significantly determines their self-esteem. As a general rule, women are usually less satisfied with their bodies than men (Wykes & Gunter, 2005). The importance of belief in one's own body shape is underpinned by findings that show dissatisfaction with one's own body shape relates to poor overall satisfaction with oneself (Mahoney & Finch, 1976). The correlation between body satisfaction and self-perception often begins during childhood (Mendelson & White, 1982).

Additionally, research conducted by Charles and Kerr (1986) indicated that women often desire to conform to a slim ideal, which is regarded as the shape most preferred by men. While women may be sensitive to perceived pressures from men to be thin, other general cultural pressures seem to influence their ideal body shape beyond perceived preferences of the opposite sex (Lamb, Jackson, Cassiday, & Priest, 1993). Other factors that may influence women's satisfaction with their bodies are social media engagement and self-esteem; however, the relationships between these variables are not fully understood.

### **Problem Statement**

The relationships between engagement with social media, self-esteem, and body appreciation among U.S. women are not fully understood (Yurchisin, Adomaitis, Johnson, & Whang, 2016). Body image, which is often the product of an individual's experiences, personality, and various social and cultural forces (Bruch, 1978), was conceptualized as body appreciation in the current research. Women are particularly prone to body image disturbances (Andrew, Tiggemann, & Clark, 2016). In Bruch's (1978) study on body image, U.S. women indicated their perceptions of how they believed the opposite sex perceived the ideal female body shape and size. In Western cultures, women who view media images of women with thinner bodies often report negative feelings associated with their own bodies (Fardouly & Vartanian, 2015).

Dissatisfaction with one's body and low self-esteem are significant issues that many women experience throughout their lives (Cash, 2012). In a study on body image and body acceptance, 79% of female participants had problems accepting their bodies, and poor body acceptance was most commonly caused by dissatisfaction with body weight (Pop, 2016). Similarly, roughly half of the girls included in Clark and Tiggemann's (2006) study on

appearance culture indicated their ideal body size was smaller than their perceived, actual current sizes (Clark & Tiggemann, 2006). A significant correlation between body image dissatisfaction and self-esteem was also reported by Pop (2016). Similarly, Tiggeman (2005) reported that perceived body size is an accurate predictor of self-esteem and body satisfaction. Grogan (2016) asserted that women's perceptions of their body sizes were accurate predictors of body satisfaction, especially when they did not align with slender ideals.

Researchers have substantiated the relationship between self-esteem and body appreciation (Choi & Choi, 2016; Duchesne et al., 2016; Koronczai et al., 2013), with limited and conflicting correlations reported between body appreciation and engagement with social media (Yurchisin et al., 2016). Accordingly, further research is needed to develop a more comprehensive understanding of the ways that self-esteem and engagement with social media may affect body appreciation. The problem is that little is known about the direct relationships between body appreciation, self-esteem, and social media engagement.

### **Purpose Statement**

The purpose of this study was to evaluate the relationships between women's self-reported social media engagement, body appreciation, and self-esteem. This study addressed a gap in the current literature regarding the potential relationships between body appreciation and frequency of engagement with social media, as well as how self-esteem may moderate that relationship. While researchers have reported some correlations among body image and the frequency of engagement with social media, findings are inconsistent (Yurchisin et al., 2016); this suggests that another variable, such as self-esteem, may influence that relationship.

Body image dissatisfaction typically emerges among girls during early adolescence (Wykes & Gunter, 2005). Even girls as young as 11 years have been found to exhibit similar

perceptions, and these concerns with their bodies have been linked to lower self-esteem (Wykes & Gunter, 2005). The emergence of body image concerns is very important as it is frequently linked to other mental and physical health issues, such as eating disorders (Wykes & Gunter, 2005). The current study drew attention to the potential ways frequent engagement with social media platforms may affect self-esteem and body appreciation among U.S. women.

### **Significance of the Study**

The current research employed a positive psychology approach to examine the ways that engagement with social media may affect body appreciation and self-esteem among women in the United States. The information derived from this research increases awareness of the ways social media can affect women's self-perceptions. As a bevy of issues related to body image disturbances (i.e., eating disorders, depression, and low self-esteem) proliferate among U.S. women, it is important to understand the ways the increasing presence of social media affects this group.

### **Theoretical Framework**

A number of theories have been developed to understand body image problems; however, social factors have been observed to exert a powerful influence on the development and maintenance of body image disturbances (Fallon, 1990; Heinberg, 1996). Sociocultural theory, based on the idea that human development is influenced by social and cultural factors (Vygotsky, 1978), purports societal standards for beauty stress the importance of thinness and other difficult-to-achieve standards of beauty (Tiggeman & Pickering, 1996). This model emphasizes the current societal standard for thinness among women is pervasive and unattainable (Wykes & Gunter, 2005).

Based on what is known about Social Comparison Theory, individuals establish their identities by comparing themselves with others who possess specific, valued attributes (Blue & Festinger, 1954). This theory assumes that individual differences in tendencies to compare oneself with others, to engage in upward comparisons, or to choose inappropriate comparison targets, by which some individuals are more vulnerable to socio-cultural appearance pressures than are others (Striegel-Moore, McAvay, & Rodin, 1986). Importantly, women who already have body image issues are disproportionately vulnerable to negative effects of exposure to thin ideals in the media (Groesz, Levine, & Murnen, 2002).

### **Research Questions**

**RQ1.** What is the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and body appreciation (assessed via the BAS-2)?

**RQ2.** What is the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and self-esteem (assessed via the RSE)?

**RQ3.** Does self-esteem (assessed via the RSE) moderate the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and body appreciation (assessed via the BAS-2)?

### **Definitions**

**Body appreciation:** Body appreciation describes individuals' acceptance of their bodies, which is indicated by treating the body with respect, possessing favorable attitudes toward it, and rejecting socially-constructed ideals of physical beauty (Tylka & Wood-Barcalow, 2015a). In

the current research, body appreciation was a dependent variable, assessed via the BAS-2 (Tylka & Wood-Barcalow, 2015).

**Body image:** Body image is a multidimensional construct with cognitive-affective, behavioral, and perspective components, among which the cognitive-affective component is divided into two subcomponents. These include appraisal of one's own appearance and importance of one's body weight and shape (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999).

**Body image distortions:** Body image distortions describe disturbances in the ways an individual experiences his or her body weight or shape (Frank & Treasure, 2016).

**Ideal self:** The ideal self describes an individual's idealized version of himself or herself, which is based on life experiences, social demands, and perceptions of role models. (Mack, 2018).

**Internalization:** Internalization describes the act of giving subjective character to incorporate values within the self as conscious or subconscious guiding principles through learning or socialization (Sandler, 2018).

**Self-concept:** Self-concept describes an idea of the self that is constructed from the beliefs one holds about oneself, as well as the responses of others. Self-concept is formed through one's experiences, as well as his or her interpretations of the surrounding environment (Marsh et al., 2019).

**Self-esteem:** Self-esteem describes confidence in one's worth or abilities; self-respect (Rosenberg, 1979). In the current research, self-esteem was assessed via the Rosenberg Self-Esteem Scale (Rosenberg, 1979). This variable was examined as a dependent variable (RQ 2), as well as a moderating variable (RQ 3).

**Social media:** Social media describes an integrated media group with different communicative capabilities (Barcelos & Rossi, 2014). Social media can be comprised of many different forms, such as TV, magazines, music videos, or computer games (Bell & Dittmar, 2011).

**Social media engagement.** Social media engagement describes how often an individual spends consuming and creating social media content. In the current study, social media engagement was assessed via a single question on the demographic questionnaire, which asked how often respondents engaged with social media, by contributing, posting, sharing, or consuming content (Banyai et al., 2017).



## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

Body dissatisfaction and low self-esteem are significant issues with which many women contend (Cash, 2012). While a number of factors can influence body appreciation, literature on the topic is still burgeoning. Important factors that may influence body appreciation among U.S. women include engagement with social media and self-esteem; however, these relationships are not fully understood (Yurchisin et al., 2016). Accordingly, the aim of current research was to evaluate the relationships between women's body appreciation, self-esteem, and self-reported social media engagement.

This chapter provides a review and synthesis of the existing literature in order to conceptualize the current research and expose the knowledge gap that was addressed. The chapter begins with a discussion of social media and the positive and negative effects of engagement with social media. Next, body image and body appreciation are conceptualized and discussed. Self-esteem is presented as an important construct of the current study, in relation to both body image and social media engagement. Finally, the effects of media exposure on body image are specifically discussed. The chapter concludes with a brief summary and transition.

### **Theoretical Framework**

The framework for this study was based on sociocultural and social comparison theory. Sociocultural theory is based on the idea that human development is influenced by social and cultural factors (Vygotsky, 1978). Social comparison theory, which is based on the notion that individuals establish their identities by comparing themselves with others who possess specific, valued attributes (Blue & Festinger, 1954), is a product of sociocultural theory. Social comparison describes individuals' tendencies to compare themselves to others, engage in upward

comparisons, or to choose inappropriate comparison targets (Striegel-Moore, McAvay, & Rodin, 1986). In the current research, I assumed that individuals engage in social comparison behaviors when they engage with social media. Thus, I supposed that higher levels of social media engagement may have a deleterious effect on self-esteem and body appreciation.

Other body image researchers have used social comparison theory to examine the effects of media on self-esteem and body image constructs. For example, Cattarin, Thompson, Thomas, and Williams (2000) used the theory to examine how exposure to television commercials affected women's mood and body image concerns. Stormer and Thompson used social comparison theory to examine body image disturbances and tendencies toward disordered eating among female college students. Engeln-Maddox (2005) used the theory to explore how female college students conducted cognitive processing of print media images of very attractive women, and how this processing affected their body satisfaction. Homan and Tylka (2015) leveraged social comparison theory to examine relationships between social comparison, self-worth, self-compassion, and body appreciation. Finally, Andrew, Tiggemann, and Clark (2016) examined predictors of body appreciation using social comparison theory. Based on the large number of body image and body appreciation studies that employed social comparison theory, I determined this theory to be strongly aligned with the current study.

### **Related Literature**

#### **Social Media Use**

Social networking sites (SNS), such as Facebook, Twitter, Instagram, and Snapchat, provide individuals with opportunities to connect with one another and share common interests (Ellison, Steinfield, & Lampe, 2007). In recent years, social media has become increasingly pervasive. The majority of Americans (71%) with internet access also use Facebook (Duggan,

Ellison, Lampe, Lenhart, & Madden, 2015). A study from the Pew Research Center (2018) indicated that over 76% of individuals with Facebook accounts use the platform at least once per day (Smith & Anderson, 2018). Similarly, the majority of Snapchat (63%) and Instagram (60%) users visit the platforms on a daily basis (Smith & Anderson, 2018), and that the average user has 338 Facebook friends (Duggan et al., 2015). Facebook, the most popular SNS, allows users to communicate by creating, sharing, or commenting on one another's posts (Fox & Moreland, 2015). Although Facebook is the most common SNS, the effects of engagement with social media are evident across a number of platforms. Accordingly, the current research was more broadly conceptualized as frequency of engagement with social media on any social media platform.

Research indicates the amount of time spent engaging with social media, whether consuming or contributing content, can be problematic (Banyai et al., 2017). In a study on problematic social media use among U.S. adolescents, Banyai et al. (2017) found that individuals who demonstrated high levels of social media use were more prone to depression, low self-esteem, and withdrawal. Of particular relevance to the current study, the researchers noted that female respondents were at the greatest risk for problematic social media use and the associated negative consequences. Similar gender differences have been noted by other scholars (Pontes, Kuss, & Griffiths, 2015), suggesting that women and girls are more likely to demonstrate problematic levels of social media engagement.

Typically, frequency of engagement with social media is assessed via self-reports. For example, Zuniga, Molyneux, and Zheng (2014) used self-reports of social media engagement to examine correlations between political participation and social media use. Junco (2015) employed self-reports of social media use to explore relationships between academic

performance and Facebook use among high schoolers. In another study, Zuniga, Copeland, and Bimber (2013) used self-reports to investigate the ways social media use predicted political consumerism. Finally, Seidman (2013) used self-reported social media engagement to investigate the correlations between social media use, motivation, and personality type. The current study followed the examples provided by the aforementioned scholars and use self-reported behaviors to assess frequency of engagement with social media.

### **Effects of Social Media**

A primary aim of the current research was to understand the ways that engagement with social media related to self-esteem and body appreciation. To begin this discussion, it is necessary to explore research on the ways social media engagement can affect users. Researchers have examined the consequences of social media engagement in a number of contexts, reporting both positive and negative effects.

#### **Positive Effects of Social Media Use**

Engagement with social media can affect users in a number of ways. For example, participation in social media can affect individuals' social capital, especially through relationship maintenance (Ellison et al., 2007; Ellison, Vitak, Gray, & Lampe, 2014). Ellison et al. (2007) found that individuals often use social media to maintain relationships and stay in touch with old friends. Frequency of engagement with social media is associated with the amount of social capital gleaned from participation (Ellison et al., 2007).

Similarly, social media can foster a sense of connectedness among users. For example, Allen, Ryan, Gray, McInerney, and Waters' (2014) systematic analysis revealed that three outcomes of social media use nurtured a sense of connectedness among users: (a) psychosocial well-being, (b) identity formation, and (c) sense of belonging. Similarly, Davis (2012) reported

that engagement with social media helped users develop a sense of connectedness. It is important to note that although SNS can foster a sense of connection, the effects are not always positive. For example, Oh, Ozkaya, and LaRose (2014) found it was the *quality* of interactions on social media that determined the sense of connection and well-being that users experienced. Although SNS can create opportunities for individuals to connect with one another, the sense of connection that results is ultimately contingent upon the quality of interactions with others on these sites.

### **Negative Effects of Social Media Use**

While engagement with social media can provide users with positive benefits, such as fostering social capital and a sense of connectedness, there is also a darker side to social media engagement. Frequent use of SNS is associated with negative effects, including depression, dependence, and poor self-esteem. For example, heavy users of social media often report feeling tethered to the platforms, contributing to fears that if they do not regularly engage with SNS, they will miss out on something (Fox & Moreland, 2015). Similarly, users can begin to experience pressures to engage in public relationship management on social media sites or feel obligated to quickly respond to content posted by other users in their networks. Fox and Moreland's (2015) study revealed that social media use can also contribute to a reduced sense of control, feelings of jealousy, social comparison behaviors, and relationship tensions.

**Depression.** Engagement with social media is also strongly associated with depression (Andreassen et al., 2016; Neira & Barber, 2014; Wegmann, Stodt, & Brand, 2015). For example, Neira and Barber (2014) reported that adolescents who frequently engaged with SNS had higher rates of depression. Similarly, Sampasa-Kanyinga and Lewis (2015) found that daily

engagement with SNS, in excess of two hours, was associated with depression and suicide ideation.

**Social comparison.** One of the ways that engagement with social media contributes to increased depression is through social comparisons. Nesi and Prinstein (2015) found that social comparison behaviors on social media were associated with depression, especially among girls. When discussing the potential ways that social media use may affect the body image, body satisfaction, and body appreciation of female users, it is essential to highlight the role of social comparison behaviors. For example, Feinstein et al. (2013) found social comparison behaviors among Facebook users were associated with depression. Similarly, Johnson and Knobloch-Westerwick (2014) reported social comparison behaviors among SNS users were associated with negative moods. Frequency of use may moderate the relationship between social comparison behaviors and negative affect. Lee (2014) reported that individuals who engaged with social media more frequently were more likely to engage in comparison behaviors; in turn, those social comparisons resulted in increased negative feelings.

**Poor self-esteem.** Engagement with social media is also associated with reductions in self-esteem (Malik & Khan, 2015). Importantly, the negative effect of social media engagement on self-esteem is likely related to social comparison behaviors (Lee, 2014; Vogel, Rose, Roberts, & Eckles, 2014). For example, Vogel et al. (2014) examined the mediating role of social comparison in the relationship between self-esteem and engagement with Facebook. Surveys were conducted among a sample of college students to quantify frequency of engagement, self-esteem, and likelihood of engaging in comparison behaviors when using social media.

Researchers indicated that upward comparisons significantly mediated the relationship between

Facebook use and self-esteem. In addition, more frequent use was associated with more upward comparisons, which in turn, had a detrimental effect on self-esteem.

The frequency of SNS use can moderate the relationship between engagement with social media and self-esteem. Deters and Mehl (2012) stated that passive Facebook users with high levels of use experienced a reduction in self-esteem. Individuals with low self-esteem were also more prone to internet addiction. Thus, it is possible that a complex relationship may exist between social media use, self-esteem, and individuals' positive or negative perceptions of self.

### **Body Image**

The aim of the current research was to evaluate the relationships between women's self-reported social media engagement, body image, and self-esteem. Social media use and its potential effects on users have been discussed. In this section, the concept of body image is presented, followed by a discussion of body appreciation.

Body image is conceptualized in contemporary research as an individual's cognitive, emotional, and behavioral reactions to his or her body weight and shape (Tiggemann & Lynch, 2001). Body image can be defined using a number of parameters. Wiederman (2008) defined body image as the global assessment of one's own physical attractiveness or desirability as a sexual partner. Body image is a multidimensional construct with cognitive-affective, behavioral, and perspective components. The cognitive-affective component includes self-appraisals of physical appearance and the importance of body weight and shape (Thompson et al., 1999), while the behavioral component is comprised of avoidance behaviors and control strategies (Cash, Melnyk, & Hrabosky, 2004; Hrabosky, Masheb, White, & Grilo, 2007; Slade, 1994). That is, the cognitive component of body image can prompt behavioral components, such as avoiding social situations or criticizing one's appearance. The dynamics of body image vary

from short-term body percepts (beliefs about) to long-term body concepts (general notion of; Vignemont, 2010). In the current study, body image was defined as a multidimensional construct with cognitive-affective, behavioral, and perspective components, including appraisal of one's own appearance, body weight, and shape (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999).

A person's body image is the product of experiences, personality, and various social and cultural forces (Collins, 2013). According to Szabo (2015), body image is a significant component of self-concept that can negatively affect individuals' physical and mental states. For example, feelings of vulnerability and unhealthy experiences can contribute to poor body image and undermine individuals' overall well-being, sense of attractiveness, and confidence (Donaghue, 2009). In contrast, positive body image is largely based on comparisons with one's internalized standard of attractiveness. Body appreciation, which is the construct of positive body image that was used in the current research, is discussed next.

### **Body Appreciation**

Researchers are examining the construct of body image through the lens of *body appreciation* (Tylka, 2013; Tylka, & Augustus-Horvath, 2010; Tylka & Wood-Barcalow, 2015; Wood-Barcalow). Tylka and Wood-Barcalow (2015) defined body appreciation as the ability to accept one's body, hold favorable attitudes toward it, treat it with respect, and reject social ideals that purport physical appearance is the sole form of beauty. Similarly, Piran (2015) defined body appreciation as a state of feeling *at one* with the body, while Bailey, Gammage, Ingen, and Ditor (2015) conceptualized the term as a general attitude of love and respect for one's body. The construct of body appreciation, or *positive body image*, differs from the construct of poor body image in a fundamental way. First, body appreciation entails more than just the absence of



dissatisfaction with one's physical appearance. Rather, body appreciation requires the *presence* of positive behaviors, such as intuitive eating and healthy self-esteem (Satinsky, Reece, Dennis, Sanders, & Bardzell, 2012; Tiggemann & McCourt, 2013).

Until recently, much of the body image research was focused on the improvement and treatment of poor body image, which has led to a pathological view of the issue and precluded cohesive understandings of the relationships between body image, well-being, psychological health, and other important emotional outcomes (Bailey et al., 2015). From a positive psychology lens, researchers can better understand ways to *improve* body image, rather than just the factors that lead to body dissatisfaction (Tiggeman & McCourt, 2013). An understanding of the factors that affect body appreciation, rather than just focusing on those that disrupt body image, can help researchers better understand how to foster improvements of overall well-being and identify more effective strategies for improving body image (Lambert, D'Cruz, Schlatter, & Barron, 2016).

The shift away from the focus on body image, and toward a focus on body appreciation, represents an important change in the way body image is viewed and addressed. This shift indicates a move away from emphasizing disturbances in favor of a holistic view of the factors that may positively affect individuals' attitudes toward their bodies (Halliwell, 2015). Body appreciation provides a way for individuals to reframe or reject negative messages (Bailey et al., 2015), fostering psychological health and well-being rather than relying solely on the elimination of stressors (Halliwell, 2015).

It is important to note that body appreciation is not the belief that one's body is perfect. As Tylka and Wood-Barkalow (2015) explained, individuals whose physical appearances differ from cultural norms of beauty may still possess body appreciation. Body appreciation involves

accepting and respecting one's body, even if there are aspects of it that one wishes to change. In this way, individuals can experience a degree of dissatisfaction with some aspects of their bodies but still possess body appreciation (Halliwell, 2015). Individuals who possess body appreciation do not dwell on their perceived imperfections or allow aspects of their physical bodies to negatively affect their lives.

Body appreciation is still a relatively new construct, and research on body appreciation is in its early stages. Many gaps remain in the body appreciation literature. In order to provide a comprehensive background and review of related research, much of this literature review focuses on body image rather than body appreciation. This emphasis emerged naturally from the literature reviewed for this chapter, as the literature on body image and its relation to variables such as self-esteem and social media engagement, is significantly larger than the budding body of research on body appreciation.

### **Self-Esteem and Body Image**

A number of factors can influence body image, including self-esteem (Duchesne et al., 2016; Koronczai et al., 2013). Self-esteem describes an individual's overall sense of self-worth (Cash, 2012), and low self-esteem is correlated with poor body image. The direction of the relationship is unclear, as it may be that low self-esteem contributes to poor body image, or vice versa. Elsherif and Abdelraof's (2018) research indicated poor body image can lead to poor self-esteem. Mitchell, Petrie, Greenleaf, and Martin (2012) identified a correlational relationship between low self-esteem and body dissatisfaction among middle-school girls. In another study, Murray, Rieger, and Byrne (2013) stated high self-esteem was protective of body image. Due to the protective role of self-esteem in body image, higher self-esteem is thought to moderate the effects of social comparisons (Jones & Buckingham, 2005), such as those that often occur with

media exposure and social media engagement. Because research indicates self-esteem is strongly related to body image, the current study involved an examination of the relationship between self-esteem and body appreciation. In addition, self-esteem was examined as a potential moderator in the relationship between social media engagement and body appreciation.

### **Media Exposure, Comparison Behaviors, and Body Image**

In addition to self-esteem, exposure to media can significantly affect body image. The mechanism through which media exposure affects body image is most often social comparison behaviors. There are two types of appearance concerns that increase the negative effects of media exposure on individuals' appearance satisfaction; these concerns include pre-existing dissatisfaction with personal appearance and commitments to socio-cultural attitudes on appearance (Want, 2009). Perceptions that thinness is desired - or even required - for acceptance within a key social group can lead to body dissatisfaction (Gondoli, Corning, Salafia, Bucchianeri, & Fitzsimmons, 2010).

When comparing media types and their influence on body surveillance, Tiggemann and Slater (2013) said that magazine and television exposure were positively correlated with body surveillance and internalization of the thin ideal (Tiggemann & Slater, 2013). For example, Clay, Vignoles, and Dittmar (2005) reported exposure to media ideals of beauty resulted in poor body image and reduced self-esteem among a sample of adolescent girls. The reductions in body image and self-esteem occurred among participants, after exposure to the beauty ideals, prompted internal comparison behaviors in which participants compared perceptions of their own bodies to the beauty ideals; the greater the discrepancy between the two, the greater the negative effects of the exposure.

The relationship between poor psychological functioning and a strong tendency to engage in body comparison behaviors may reflect greater willingness among those with higher uncertainty to engage in deeper processing, thus increasing the likelihood of negative outcomes (Durkin, Paxton, & Sorbello, 2007). Exposure to media images can significantly affect women's self-perceptions, especially during developmental years. In a study conducted by Stice and Shaw (1994), female respondents were exposed to 12 photographs of thin and average size models taken from popular magazines for three-minute periods. The researchers found that women experienced higher levels of depression, stress, guilt, shame, insecurity, and body image dissatisfaction when exposed to images of the thin models, as compared to the images of average size models. These findings were substantiated by Thornton and Maurice (1997), who conducted an experiment in which women were exposed to 50 photographs of models for eight seconds each. The participants included women between the ages of 17 and 28 years old. The researchers found that participants who were exposed to images of idealized physiques expressed lower self-esteem, elevated self-consciousness, body dissatisfaction, and anxieties about their own body shape. In contrast, participants who displayed lower adherence to ideals of attractiveness demonstrated generally higher levels of body self-esteem.

Sociocultural influences can lead to comparison behaviors, which describes the act or instance of comparing oneself to others. Social comparisons, whether intentional or unintentional, can affect body image. Durkin et al. (2007) said the tendency to engage in body comparison behaviors predicted short-term changes in body satisfaction after viewing idealized media images. This was true for active media consumption and inactive media consumption, such as non-conscious processing. Social comparisons may not be effortful, meaning that female viewers may process stimuli unconsciously (Want, 2016).

Stapel and Schwinghammer (2004) conducted a study on social comparisons and found that perceived similarity was a precondition for contrastive comparison effects. Similarity influenced whether the processes of interpretation or comparison exerted a stronger effect. Data supports a model in which body comparison tendency directly predicts changes in body satisfaction following exposure to idealized female images, after the contribution of stable body dissatisfaction has been taken into account (Durkin et al., 2007). Exposure to images reflecting these norms often lead women to base their self-worth more strongly on their appearance, creating feelings of body dissatisfaction (Strahan et al., 2008). When discrepancies between one's self-perceptions and perceptions of an ideal are high, the pull toward interpretation (and assimilation) is stronger (Stapel & Schwinghammer, 2004). These findings were echoed by Clay et al. (2005), who stated viewing ultra-thin or average sized models led to decreases in both body satisfaction and self-esteem among adolescent girls between the ages of 11 and 16, with changes in self-esteem mediated by changes in body satisfaction.

Posavac, Posovac, and Posovac (1998) conducted three experiments in which female undergraduates completed a measure of trait body dissatisfaction prior to being shown slides of fashion models or neutral images of motor vehicles. Weight concern was also measured following the exposure. Results indicated that women who were dissatisfied with their bodies prior to the exposure displayed greater weight concerns after exposure to the fashion models, as compared to the control group. The second experiment was similar to the first, with the addition of a third condition involving pictures of attractive women who were not fashion models. The third set of pictures were of other college women. The results were similar to those from the first experiment; however, the images of realistic beauty (other college women) were not as likely to induce women to become concerned with their weight as were the images of fashion models. A

third experiment was conducted in which a distraction focusing on shopping habits was integrated. Findings revealed the shopping distraction did not have a significant effect; women who were dissatisfied with their bodies still exhibited weight concerns following exposure. Posavac et al. concluded that exposure to media representations of body ideals could affect women's personal weight concerns through the act of social comparison.

In another study, Wegner, Hartmann, and Geist (2000), assessed the immediate effects of brief exposure to images from print media. General self-consciousness and body self-consciousness among a sample of U.S. female undergraduates were assessed. Similar to Posavac et al.'s (1998) study, participants either viewed photographs of thin female models or control photographs. The young women who looked at the pictures of the thin female models had higher self-consciousness ratings than those who viewed the control pictures, especially in terms of body self-consciousness.

Heinberg and Thompson (1995) examined the role of awareness and internalization of societal standards of appearance by reviewing the effects of television commercials on body image. Participants included college-age women who viewed 10-minute videotapes of commercials that either contained stimuli that emphasized societal ideals of thinness and attractiveness or neutral, non-appearance related stimuli. Results indicated the participants exposed to the videotape that stressed the importance of thinness and attractiveness reported greater depression, anger, weight dissatisfaction, and overall appearance dissatisfaction than those in the control group. The researchers also reported that participants who possessed high dispositional levels of body image dissatisfaction demonstrated increases in dissatisfaction with body weight and overall appearance following exposure to the appearance-related videotapes. Participants who had low levels of dispositional body image dissatisfaction either showed

improved or unchanged body image self-perceptions following the exposure to the appearance related videotapes. Interestingly, all participants who were exposed to the neutral control videotape demonstrated decreases in both weight and appearance dissatisfaction.

An experiment conducted by Myers and Biocca (1992) involved a systematic manipulation of participants' exposure to television programming and advertising materials that featured either thin or obese models. This experimental paradigm was adopted to investigate the effect of college women's estimations of their own bodies following exposure to programs and advertisements depicting thin and heavy bodies. Myers and Biocca hypothesized that ideal body advertising and programming would play an indirect role in the promotion of body image distortions. The scholars believed the media influences the development of internalized ideal body concepts among young women, and changes in internal body image ideals may lead to changes in the individual's present body images.

Myers and Biocca (1992) compiled four videotapes consisting of a combination of programming and advertising that either (a) featured body image messages or (b) had no body image messages. A body image detection device was used to measure participants' impressions of their own body image. Overall, body image overestimations were the most common form of distortion. The researchers found that body image commercials produced distortions in body image perceptions, which challenged their hypothesis. Overestimations were less frequent among participants in the body image commercial conditions than among the neutral commercial conditions. Body image commercials affected participants' perceptions of their waist and hip sizes. Body image programs did not significantly affect participants' short-term body image perceptions of their chests, waist, or hips; however, when paired with body image commercials, body image programming resulted in lower estimates of waist measurements. The effects of

body image commercials and body image programming on mood were measured, and the researchers reported the presence of body image commercials led to lower levels of depression. This study confirmed that young women tended to overestimate their body sizes. Results also revealed that young women's body image is elastic, and as reported by Myers and Biocca (1999), body shape perceptions can be changed by watching less than 30 minutes of television each day.

Greater internalization of socio-cultural norms is associated with lower body image; Jones and Buckingham (2005) found this effect was not moderated by experimental exposure to attractive versus unattractive images. For the adolescents in this study, dissimilarities between participants' perceptions of self and the images affected body satisfaction. Comparisons to models and images of heavier women resulted in an increase in body satisfaction. Women who viewed thin images felt worse about their bodies, whereas women who viewed overweight images felt better. Viewing images of overweight women can improve the body image of women (Holmstrom, 2004).

The negative effect of media can be overturned, and there is hope that other images can produce positive affect. In a study on adolescent girls, researchers exposed participants only to images of overweight models in an attempt to prevent a negative affect (Clay et al., 2005). It was found that exposure to portrayals of non-overweight, idealized models are sufficient to negatively impact their body satisfaction and self-esteem (Clay et al., 2005). A possible method to dispel body dissatisfaction is through affirmations. Affirmed girls demonstrated significantly greater body satisfaction and perceived significantly fewer threats from having to rate their body shape and weight compared with an equivalently active control group (Armitage, 2011).



Conducting interventions can also positively impact outcomes, as girls were found to base their self-worth less strongly on appearance (Strahan et al., 2008).

Want (2009) reported increased levels of exposure to visual stimuli increased the likelihood of encountering media portrayals that prompted individuals to engage in social comparison behaviors. Social comparisons prompted by media portrayals noticeably affected dimensions of participants' physical appearance that they found dissatisfying or personally relevant. Such social comparison behaviors can increase the negative effects of exposure to media images, especially related to body and weight satisfaction among female viewers (Want, 2009). In Clay et al.'s (2005) study on body image, participants who viewed images of models reported significantly lower levels of self-esteem than that of the control condition group. Interestingly, Clay et al. noted no self-esteem differences between participants exposed to ultra-thin models and those exposed to images of average-sized models.

Sociocultural influences can significantly predict body dissatisfaction and body change strategies among males and females, alike (Ricciardelli & McCabe, 2001). Mass media provides prominent sources of comparison points (Wykes & Gunter, 2010). Television, films, and magazines often present representations of role models, obscuring the reality that many of those images have been artificially manipulated to make individuals look more representative of cultural beauty ideals (Wykes & Gunter, 2010). In a study of U.S. college students, same-age peers had the greatest influence on participants' overall self-esteem, followed by celebrities (Heinberg & Thompson, 1995). Furthermore, the importance ratings for comparison groups in relation to judging one's own appearance were significantly correlated with levels of body dissatisfaction among women.

In an experimental study on the influence of print media on body shape perceptions, Cash, Cash, and Butters (1983) showed 51 women participants pictures of female models from magazine advertisements and feature articles. Participants were exposed to three different conditions: (a) pictures of physically attractive women, (b) pictures of physically attractive women who were labeled as models, and (c) and pictures of women judged to be physically unattractive. After viewing images, participants completed physical attractiveness and body satisfaction surveys. Cash et al. stated individuals who were exposed to pictures of attractive women rated themselves as less attractive than those who were exposed to pictures of the less physically attractive women. An effect occurred when women negatively compared themselves to magazine images of physically attractive women.

### **Social Media Effects on Body Image**

Much of the media exposure individuals experience occurs through social media. The impact of social media on body image cannot be overstated. SNSs provide users with opportunities to explore how other people view and portray themselves (Meier & Gray, 2014). Discussing the distinguishing attributes of SNS, Perloff (2014) asserted that these sites are immensely personal because they allow users to bond with technology, via content that revolves around the self. Young female users of SNS often spend a lot of time viewing other people's social media profiles without communicating with them, a behavior that Meier and Gray (2014) term as *lurking*. Santarossa and Woodruff (2017) observed that individuals who spend a lot of time lurking are more likely to have lower levels of body image satisfaction. Importantly, in Santarossa and Woodruff's study, 57% of female respondents admitted to lurking behaviors.

The negative effects of social media engagement on body image can result in disordered eating. Bardone-Cone and Cass (2006) conducted an experiment to investigate the impact of

pro-anorexia websites on female undergraduates. They found that exposure to such websites contributed to a number of short-term, adverse effects, including negative affect, diminished perceived attractiveness, and low self-esteem. These findings were further corroborated a study the scholars conducted a year later (Bardone-Cone & Cass, 2006), which indicated the negative effects of computer technology designed to create perfect, natural-looking, unblemished representations of individuals.

### **Summary**

While scholars have substantiated the negative effects of social media engagement and poor body image, many gaps remain on the topic of body appreciation. Further, research findings on the relationships between frequency of social media engagement, body appreciation, and self-esteem are unclear. Accordingly, the aim of the current research was to examine these relationships. This chapter included a review of the existing research on body image, as well as studies in the burgeoning area of body appreciation. Details of the method used for the current investigation are discussed in the following chapter.

## **CHAPTER THREE: METHOD**

### **Overview**

Among U.S. women, the relationships between social media engagement, body appreciation, and self-esteem is not fully understood. The purpose of the current study was to examine the relationships between women's self-reported social media engagement, body appreciation, and self-esteem. This study addressed a gap in the current literature regarding the potential relationship between social media engagement and body image, as well as whether self-esteem moderated that relationship. This chapter provides details of the methodology, including a description of the research design, participant characteristics, data collection strategies, instrumentation, the data analysis plan, and strategies for ensuring the study's validity and reliability.

### **Design**

The nature of this research was quantitative, and it followed a correlational design. A quantitative design was selected because it allowed me to objectively analyze results from self-report surveys. According to Nardi (2018), quantitative methods are useful for testing the statistical significance of relationships between quantifiable variables. Because the goal of this study was to examine the statistical significance of relationships between the quantifiable variables of body appreciation, self-esteem and engagement with social media, a quantitative method was selected. The design selected for this research was correlational because the goal was to test the statistical strength of the relationships between social media engagement and body appreciation in the presence of a third variable, self-esteem.

### **Operationalization of Variables**

Three variables were examined in the current research, including body appreciation, self-esteem, and social media engagement. These variables are operationally defined, as follows.

**Body appreciation.** As defined by Tylka and Wood-Barcalow (2015b), body appreciation describes individuals' acceptance of their bodies, which is indicated by treating the body with respect, possessing favorable attitudes toward it, and rejecting socially-constructed ideals of physical beauty. In the current research, body appreciation was a dependent variable, assessed via the BAS-2 (Tylka & Wood-Barcalow, 2015b). The BAS-2 is a 10-item assessment with responses scored on a scale of 1 to 5, with lower scores indicating lower levels of body appreciation. The instrument is scored using the average score for the 10 responses, ranging from 1 to 5.

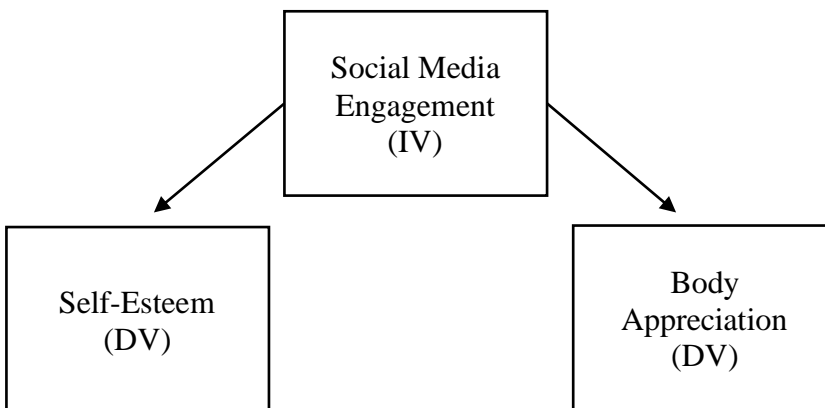
**Self-esteem.** Self-esteem is defined as the thoughts and feelings that individuals hold toward themselves (Rosenberg, 1979). In the current research, self-esteem was assessed via the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1979). This variable was examined as a dependent variable (RQ 2), as well as a moderating variable (RQ 3). The RSE is a 10-item scale with scores ranging from 0 to 30. Higher scores reflect higher levels of self-esteem. Scores between 15 and 25 are considered normal, and scores below 15 indicate low self-esteem.

**Social media engagement.** Social media engagement describes how often an individual consumes and creates social media content. Social media engagement was assessed via a single question which asked how often respondents engaged with social media, by contributing, posting, sharing, or consuming content. Scores for this variable will range from 1 (never) to 10 (all the time).

### Research Questions

**RQ1.** What is the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and body appreciation (assessed via the BAS-2)?

**RQ2.** What is the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and self-esteem (assessed via the RSE)?



*Figure 1.* Model for Research Questions 1 and 2

**RQ3.** Does self-esteem (assessed via the RSE) moderate the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and body appreciation (assessed via the BAS-2)?

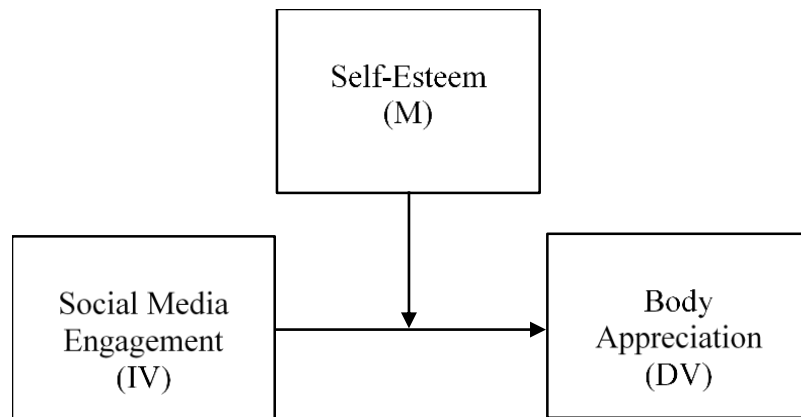


Figure 2. Model for Research Question 3

### Null Hypotheses

**H<sub>0</sub>1.** A statistically significant relationship does not exist between social media engagement and body appreciation.

**H<sub>0</sub>2.** A statistically significant relationship does not exist between social media engagement and self-esteem.

**H<sub>0</sub>3.** Self-esteem does not significantly moderate the relationship between social media engagement and body appreciation.

### Participants and Setting

#### Population

According to data from the 2010 U.S. Census, females comprise approximately 50.8% of the U.S. population. Population estimates provided by the Census Bureau indicate that the U.S. population of females between the ages of 18 and 45 was approximately 47,886,748 for 2017 (the most recent year for which data are available). Because the target population for the current study included U.S. females between the ages of 18 and 45, the approximate population size was 47.9 million individuals.

While researchers tend to focus on body image and associated eating disorders among younger populations of women and girls, studies indicate that body image struggles are by no means isolated to these younger groups. For example, Fairweather-Schmidt, Lee, and Wade (2015) found that among women between the ages of 45 and 50 years old, 11% exhibited the behavioral and cognitive markers of disordered eating. Marcus, Bromberger, Wei, Brown, and Kravitz (2007) found that 11% of North American women between the ages of 42 and 55 admitted to regular binge eating behaviors, and 13.4% engaged in fasting or extreme diets for weight loss. For these reasons, the sample for the current research consisted of women between the ages of 18 and 45. Although demographic information, such as race and marital status were collected, eligibility to participate was not contingent upon these factors. Demographic information was used to provide descriptive statistics of the sample.

### **Sample**

The power level of this quantitative study was set at 0.80 which indicates a 1-in-5 (20%) chance of detecting no difference between groups or no relationship among variables even when such differences or relationships exist (Duffy, 2006). The  $p$  value in this study was set at 0.05, which indicates the margin of type 1 error that will be tolerated. The effect size measures the magnitude of the relationship that exists in the population (Duffy, 2006). A medium effect size was used for the statistical analyses in this study.

Using the aforementioned parameters, a sample size calculation was performed to determine the minimum sample size necessary for the intended analyses. To address research question 1 and research question 2, Pearson correlation analyses were conducted to assess the relationships between social media engagement and body appreciation, and social media engagement and self-esteem. To address research question 3, Baron and Kenny's (1986)



moderation analysis were conducted to assess the moderating effect of self-esteem on the relationship between social media engagement and body appreciation. This approach to moderation analysis uses multiple linear regression analysis to test the moderating relationship between the moderator variable, the independent variable, and the dependent variable (Aguinis, Edwards, & Bradley, 2017). Generally, a moderator is a variable that affects the direction or strength of a relationship between an independent variable and a dependent variable (Baron & Kenny, 1986).

G\*Power was used to assess the minimum sample size necessary for the Pearson correlation analyses and a multiple linear regression analysis. For a two-tailed Pearson correlation analysis, with a medium effect size ( $\rho = 0.3$ ), an alpha of 0.05, and a power of 0.80, the required sample size was 84 participants (Faul, Erdfelder, Buchner, & Lang, 2009). For a multiple linear regression with a medium effect size ( $f^2 = 0.15$ ), an alpha of 0.05, a power of 0.80, and two predictors the required sample size is 68 participants (Faul et al., 2009). A sample of sufficient size to meet the more stringent sample size requirement ( $n = 84$ ) was secured for the study.

### **Sampling Strategy**

The sampling strategy used for the research was nonrandom, as the following two inclusion criteria were used: (a) sex of female, and (b) between the ages of 18 and 45 years. These elements were selected based on the hypotheses guiding the study. Study participants were recruited through Survey Monkey, the online survey platform that was used to recruit participants and gather data for this study.

## Instrumentation

### Body Appreciation Scale-2 (BAS)

The BAS-2 (Tylka & Wood-Barcalow, 2015a, see Appendix A) is a 10-item scale designed to assess respondents' respect toward, acceptance of, and favorable attitudes toward their bodies. This instrument contains no subscales and no permission is required for its use. The BAS-2 assesses the extent to which respondents: (a) hold favorable opinions of their bodies, (b) accept their bodies in spite of their weight, body shape, and imperfections, (c) respect their bodies by attending to their body's needs and engaging in healthy behaviors, and (d) protect their body image by rejecting unrealistic media ideals. Each of the 10 positively-worded items are responded to using a 5-point Likert-like scale, ranging from 1 (*never*) to 5 (*always*). Scores are calculated by averaging respondents' scores for each of the 10 items, ranging from 1 to 5.

I selected the BAS-2 (Tylka & Wood-Barcalow, 2015a) for the current study because it was short, easy to administer, and simple to score. It is also the most widely-used body appreciation scale and has indicated a strong internal consistency reliability (Cronbach's alpha = 0.97). According to Tylka and Wood-Barcalow (2015a), confirmatory factor analysis indicated the BAS-2 was unidimensional and invariant across sex and type of sample, making it appropriate for a variety of female and male samples.

### Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1979) is a 10-item scale designed to measure self-esteem (see Appendix B). Permission is not required to use this instrument. Although the RSE was originally designed for use among high school students, it has proven valid and reliable for samples of all ages (Robins, Hendin, & Trzesniewski, 2001). Because of its simplicity and broad applicability, the RSE a widely-used self-esteem instrument (Hagborg,

1993). Responses to 10 statements are made using a Likert-like scale, ranging from 1 (*strongly agree*) to 4 (*strongly disagree*). The scale has demonstrated excellent internal consistency (0.92) and test-retest reliability of 0.85 and 0.88. Thus, there is sufficient evidence to support the reliability of the scale (Martin-Albo, Nunez, Navarro, & Grijalvo, 2007).

The RSE (Rosenberg, 1979) is scored using combined ratings. High self-esteem is indicated by agreement with positively-worded items (1, 3, 4, 7, and 10), such as “On the whole, I am satisfied with myself.” Low self-esteem is indicated by agreement with negatively-worded items (2, 5, 6, 8, and 9) such as “At times, I think I am no good at all.” The RSE is calculated by adding the scores for each of the 10 items, after reverse scoring the negatively-worded items. Scores for the RSE range from 0 to 30.

### **Social Media Engagement**

Social media engagement was assessed as self-reported frequency of use, via one question included in the demographic questionnaire. Importantly, social media engagement was operationalized as the self-reported frequency with which participants engaged with social media platforms, either through consuming or creating (posting) social media content. The question asked “How often do you use social media (either contributing content/posting/sharing, or consuming content)?” Social media was defined as any SNS platform (i.e., Facebook, Instagram, Twitter, Snapchat, etc.). Respondents selected from the following 10 indicators of frequency: Never (1), Once a month (2), Several times a month (3), Once a week (4), Several times a week (5), Once a day (6), Several times a day (7), Once an hour (8), Several times an hour (9), or All the time (10). The score for each participant ranged from 1 to 10.

Although a number of instruments designed to assess social media use were considered, a single question to assess frequency was ultimately selected in order to keep the research survey

short and ensure a higher rate of completed surveys. For example, I originally intended to use the Media and Technology Usage and Attitudes Scale (MTUAS; Rosen, Whaling, Carrier, Cheever, & Rökkum, 2013); however, this instrument is lengthy (60 items) and is designed to provide a detailed assessment of users' attitudes and experiences with social media, beyond just their frequency of use. The response choices selected for the social media consumption question were borrowed from the MTUAS, as these 10 options provided detail about frequency of social media use without requiring respondents to calculate the actual amount of time (in minutes or hours) they spent engaging with social media.

### **Demographic Questionnaire**

Demographic information for respondents were collected via a brief demographic questionnaire, which was part of the online survey. The demographic questionnaire (see Appendix C) was used to collect information on respondents' gender, age, education level, marital status, and race. As previously mentioned, the question used to assess social media engagement was also included in this questionnaire.

### **Procedures**

Prior to any data collection, I obtained research permission from Liberty University's Institutional Review Board (IRB). Once approved, data were collected in partnership with Survey Monkey, a self-serve survey platform that allows researchers to develop, design or use pre-existing surveys to collect and analyze data through an online interface. The service allows researchers to quickly obtain survey results and filter data as desired. Survey data are stored on Survey Monkey's secure server, and can be downloaded in spreadsheet form and then exported into SPSS for analysis. Survey Monkey works with researchers to provide participants based on the sample requirements for a study. Surveys are then launched online, and respondents who

meet the inclusion criteria are sent email invitations to participate. Researchers may select a *High Priority* option which ensures that their surveys will be completed with priority, and that results will be available quickly. In the current study, the *High Priority* option was used.

Survey Monkey participants are recruited from the company's database of users. These *panelists* donate their time, and as compensation, Survey Monkey donates 50 cents per survey to the charity of the panelist's choice. Survey Monkey sends email invitations to participants, which include links that individuals may click to access a survey. If the survey has reached its maximum number of participants, the router assigns the panelist to another survey in real time. After the required number of completed surveys has been obtained, the project status is switched to *complete* and the survey is closed.

Survey Monkey was selected to assist with data collection because it provided me with an efficient means for quickly collecting data from a national sample of individuals who met eligibility requirements. Survey Monkey sent prospective respondents (U.S. women between the ages of 18 and 45) an email invitation to participate in the study. This email contained a link to the survey; individuals who clicked the link were taken to an online informed consent form (Appendix D), which contained study details, participation requirements, risks, and the researcher's contact information. The informed consent form also highlighted the voluntary nature of participation. Respondents clicked "I agree" on the informed consent form in order to give consent for participation. They were taken to the first questions of the survey, which served as screening questions to ensure individuals were women residing in the U.S., who were between the ages of 18 and 45. Those who were eligible proceeded to the rest of the study survey questions, which took approximately 10 minutes to complete. Ineligible individuals who

indicated answers outside of these parameters, were sent to a screen thanking them for their time and exited from the online survey.

The survey was launched during March, 2019. Individuals who began the survey were under no obligation to complete the survey after they started it. I removed incomplete surveys from the data set prior to analysis. No identifying information was collected from any respondent, such that survey responses remained completely anonymous. After the required sample was obtained, the survey was closed, and I began data analysis. No further contact with participants was required. I did not directly provide any incentives for participation.

### **Data Analysis**

Following data collection, completed surveys were downloaded from Survey Monkey into a spreadsheet for data analysis. By selecting the *export* option, I accessed a spreadsheet of data formatted as a Statistical Package for the Social Sciences (SPSS) data file. I conducted data cleaning and management in IBM SPSS version 25 prior to conducting the analyses.

I calculated composite scores on the RSE and BAS-2, tested for the presence of outliers, and assessed normality of the continuous variables prior to conducting further statistical analysis. A composite score from participants' responses on the RSE was used as a continuous measure of self-esteem in the study. Items 1, 3, 4, 7, and 10 from the RSE were reverse-scored and then a sum of the 10 items on the scale were calculated to create the self-esteem score. For the body appreciation score, a composite score was calculated for the BAS-2 by averaging participants' responses to the 10 items on the scale. This average comprised the continuous body appreciation score used in the analysis. The continuous measure of social media engagement was derived from the single-item on the demographic questionnaire assessing frequency of social media use. The presence of outlying values for each of these scores was evaluated through examination of

standardized values for each case. Standardized values greater than  $\pm 3.29$  were considered evidence of an outlier in the dataset (Tabachnick & Fidell, 2013). Cases with a standardized value greater than  $\pm 3.29$  were removed from the dataset. Finally, normality was assessed by conducting Shapiro-Wilk tests of normality for self-esteem, body appreciation, and social media engagement data. The Shapiro-Wilk test of normality tests the null hypothesis stating that the data follows a normal distribution (Field, 2013). For the assumption to be met, the  $p$  value must exceed 0.05.

A number of options for data analysis were considered for the study. Because the hypotheses required testing of the bivariate relationships between variables and the moderating effect of one variable on the relationship between two variables, Pearson correlation analysis and Baron and Kenny's (1986) moderation analysis were selected for the study. Pearson correlation analyses were conducted to address Research Questions 1 and 2, which focus on the relationships between social media engagement and body appreciation, and social media engagement and self-esteem. Baron and Kenny's (1986) moderation analysis were conducted for Research Question 3 to assess the moderating effect of self-esteem on the relationship between social media engagement and body appreciation.

Pearson correlation analyses are appropriate when the intent is to assess the presence of a relationship between two variables (Pallant, 2013). Specifically, Pearson correlation analyses allow researchers to test the presence, magnitude, and direction of the relationship between pairs of variables (Field, 2013). Pearson correlation analyses were appropriate for use because relationships were assessed between pairs of continuous or scale level variables (Pagano, 2009). I reported the  $p$  value and the correlation coefficient ( $r$ ) for the analyses. The  $p$  value was compared to the set alpha level of 0.05 to determine statistical significance. If the  $p$  value

exceeded 0.05, I indicated there was no statistically significant relationship between the pair of variables. If the  $p$  value was less than 0.05, I rejected the null hypotheses in favor of the alternate and interpreted the correlation coefficient. Correlation coefficients vary between -1 and +1, with values closer to 1 indicating perfect relationships between variables (Pagano, 2009).

The assumption of linearity was assessed for the Pearson correlations. This assumption must be met in order to demonstrate appropriateness of the data for the intended analysis. Linearity was assessed through examination of a scatterplot between the pairs of variables. If a linear relationship was indicated by the plot, the assumption was met. To establish a linear relationship, a straight-line relationship must be visible in the plot without any curvilinear patterns, which would indicate a non-linear relationship (Stevens, 2009).

For the Baron and Kenny (1986) moderation analysis, a hierarchical regression analysis was conducted (Aiken & West, 1991). Moderating variables may influence the strength and direction of relationship between an independent variable and a dependent variable (Baron & Kenny, 1986). Moderation analyses are conducted using multiple linear regression in SPSS. The analysis consists of two blocks in regression analysis. The first block included the independent variable (social media engagement) and the moderator (self-esteem) predicting the dependent variable (body appreciation). In the second block the interaction term (social media engagement combined with self-esteem) was added to the regression model. To support moderation, the independent variable and moderator variables must both predict the dependent variable, and the interaction term must be statistically significant. Prior to creating the interaction term, the independent and moderator variables must be centered by subtracting the sample mean for the variable each of individual's score on the variable. A new interaction term is created by multiplying the centered independent variable by the centered moderator variable.



I reported the  $p$  value, R-squared value, and statistical significance of the R-squared change to evaluate the moderation analysis. The  $p$  value was compared to the alpha level of 0.05 to indicate statistical significance. The R-squared value was reported to indicate the amount of variation in the dependent variable that could be attributed to the regression model. R-squared values may vary between 0 and 100. The statistical significance of the change in R-squared was reported to indicate if block 2, which contained the interaction term, contributed for more variance in the dependent variable than block 1, which lacked the interaction term. If this was true, then moderation was supported.

The assumptions of multiple linear regression relate to the nature of the data that is being analyzed and is most confidently conducted with “well-behaved” data that meet the underlying assumptions of the basic model (Cohen, Cohen, West, & Aiken, 2002). To determine if these assumptions held true for the data included in the analysis, the assumptions of multiple linear regression were assessed. The assumptions of multicollinearity, homoscedasticity, and independence of observations were tested.

The first assumption was that there was little or no multicollinearity in the data. This occurs when the independent variables are highly correlated with each other. For this analysis, multicollinearity was assessed between social media engagement and self-esteem. I inspected variance inflation factor (VIF) values to assess the presence of multicollinearity (Stevens, 2009). VIF values near or in excess of 10 indicated multicollinearity in the variables (Stevens, 2009).

Homoscedasticity refers to the requirement that error term must be the same for all values of the independent variable in a regression analysis (Pallant, 2013). Heteroscedastic regression models have different values for the error terms across values of the independent variables. Homoscedasticity was tested using a scatterplot of the residuals across the predicted values. For

the assumption to be met, the data points must be randomly distributed and roughly evenly distributed about the '0' on both the x- and y-axes. Finally, the assumption of independence of observations was assessed using the Durbin-Watson statistic within SPSS. For the assumption to be met, the Durbin-Watson statistic must fall between 1.5 and 2.5. Durbin-Watson statistics outside this range can be considered evidence of autocorrelation between observations (Pallant, 2013).

### **Summary**

The current research involved an investigation of the relationships between women's self-reported social media engagement, body appreciation, and self-esteem. The study followed a cross-sectional, correlational design, and it involved a sample of 119 U.S. women between the ages of 18 and 45. Data were collected via an online survey, which consisted of one question to assess social media use, the BAS-2 (Tylka & Wood-Barcalow, 2015a), the RSE (Rosenberg, 1979), and a demographic survey. The survey was launched on Survey Monkey during March, 2019. After data collection was complete, I downloaded raw data from Survey Monkey, and then uploaded data to SPSS for analysis. Pearson correlation analyses were conducted to address Research Questions 1 and 2, which focused on the relationships between social media engagement and body appreciation, and social media engagement and self-esteem. Baron and Kenny's (1986) moderation analysis was conducted for Research Question 3 to assess the moderating effect of self-esteem on the relationship between social media engagement and body appreciation. Results from the statistical analyses are presented in Chapter 4 of this dissertation.

## CHAPTER FOUR: FINDINGS

### Overview

The purpose of this study was to evaluate the relationships between women's self-report social media engagement, body appreciation, and self-esteem. The following research questions were explored:

**RQ1.** What is the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and body appreciation (assessed via the BAS-2)?

**RQ2.** What is the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and self-esteem (assessed via the RSE)?

**RQ3.** Does self-esteem (assessed via the RSE) moderate the relationship between social media engagement (assessed as self-reported frequency with which participants contribute to or consume social media content) and body appreciation (assessed via the BAS-2)?

The following research hypotheses were tested:

**H10.** A statistically significant relationship does not exist between social media engagement and body appreciation.

**H1a.** A statistically significant relationship exists between social media engagement and body appreciation.

**H20.** A statistically significant relationship does not exist between social media engagement and self-esteem.

**H2a.** A statistically significant relationship exists between social media engagement and self-esteem.

**H3o.** Self-esteem does not moderate the relationship between social media engagement and body appreciation.

**H3a.** Self-esteem moderates the relationship between social media engagement and body appreciation.

This chapter provides descriptive statistics of the sample and the initial analyses conducted to address the research questions. These results are presented in addition to the findings of the assumption testing for the analyses. The chapter closes with a summary of salient findings related to the hypotheses that guided this research.

**Descriptive Statistics**

**Descriptive Statistics for Demographic Variables**

In the research study, there were 122 respondents. Participants were recruited through Survey Monkey, which is an online survey platform. Three respondents were removed because they reported being male, and seven cases were removed for missing information within their responses. The final dataset consisted of response data for 112 female respondents. Half of the respondents indicated they were between 18 and 25 years old ( $n = 60, 54\%$ ). Many of the respondents were White/Caucasian ( $n = 63, 56\%$ ) and were single or never married ( $n = 69, 62\%$ ). Slightly less than half of the sample had attended college ( $n = 44, 39\%$ ). Table 1 provides descriptive statistics for the demographic characteristics of the sample.

Table 1

*Descriptive Statistics for Demographic Characteristics*

Variable	<i>n</i>	%
Age		
18-25 years old	60	53.57
26-35 years old	33	29.46
36-45 years old	19	16.96

Highest level of education		
Some high school	6	5.36
High school diploma	27	24.10
Some college	44	39.29
Bachelor's degree	25	22.32
Graduate degree or higher	10	8.93
Marital status		
Single/never married	69	61.61
Separated	3	2.68
Married	35	31.25
Divorced	5	4.46
Race		
African American	9	8.04
Asian	15	13.39
White/Caucasian	63	56.25
Hispanic	20	17.86
Pacific Islander	1	0.89
Other	4	3.57

**Descriptives for the Predictor Variable (Social Media Engagement)**

Respondents were asked to rate their social media engagement on a 10-point Likert scale ranging from never (1) to all the time (10). Social media engagement was defined as the frequency of consuming or creating (posting) content on social media platforms. Social media engagement was measured using participants’ self-reports. Although responses across the sample varied, almost half of the respondents indicated they engaged with social media several times a day ( $n = 46, 41\%$ ). The mean ( $M$ ), standard deviation ( $SD$ ), minimum range, and maximum range for the predictor variable are reported in Table 2.

Table 2

*Descriptive Statistics for the Predictor Variable (Social Media Engagement)*

Social Media Engagement (Predictor Variable)	<i>n</i>	<i>%</i>
Never	2	1.79

Once a month	4	3.57
Several times a month	5	4.46
Once a week	3	2.68
Several times a week	15	13.39
Once a day	4	3.57
Several times a day	46	41.07
Once an hour	3	2.68
Several times an hour	10	8.93
All the time	20	17.86

**Descriptive Statistics for the Criterion Variable (Body Appreciation) and the Moderating Variable (Self-esteem)**

Descriptive statistics were calculated for body appreciation and self-esteem scores. The mean body appreciation score was 3.33 ( $SD = 0.95$ ). The maximum score for the body appreciation instrument is 5.00. A higher score indicated that the respondent held favorable views of their bodies. The sample’s mean score indicated the respondents sometimes held positive views related to their bodies.

For the Rosenberg Self-Esteem Scale, the mean self-esteem score was 26.42 ( $SD = 5.60$ ). The maximum score the self-esteem instrument is 40.00. Higher scores on the scale indicated higher self-esteem among the respondents. The sample’s mean score indicated that respondents tended to exhibit normal self-esteem. The mean ( $M$ ), standard deviation ( $SD$ ), minimum range, and maximum range for the criterion and moderating variables are presented in Table 3.

Table 3

*Descriptive Statistics for the Criterion Variable (Body Appreciation) and Moderating Variable (Self-Esteem)*

Variable	$M$	$SD$	$n$	Range Minimum	Range Maximum
Body appreciation (Criterion variable)	3.33	0.95	112	1.10	5.00

Self-esteem (Moderating variable)	26.40	5.60	112	13.00	40.00
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**Reliability Analysis**

Reliability of the body appreciation and self-esteem instruments were calculated using Cronbach’s alpha coefficients (Stevens, 2009). Cronbach’s alpha coefficients represent the mean value of the correlations between pairs of items on the scale (Stevens, 2009). Cronbach alpha coefficients greater than 0.7 indicate acceptable reliability, with values between 0.8 and 0.89 representing good reliability and greater than 0.9 representing excellent reliability (George & Mallery, 2016). The Cronbach’s alpha coefficients indicated that self-esteem exhibited good reliability ( $\alpha = 0.85$ ), and body appreciation exhibited excellent reliability ( $\alpha = 0.95$ ). Table 4 presents the results of the reliability analysis for self-esteem and body appreciation.

Table 4

*Results of the Reliability Analysis for Self-Esteem and Body Appreciation*

Scale	No. of Items	$\alpha$	Norm $\alpha$
Self-esteem	10	0.85	0.92
Body appreciation	10	0.95	0.97

**Results**

This section contains the findings of the inferential analyses, and the results of the assumption testing were presented with each inferential analysis. Pearson correlations and moderation analysis were used to test the hypotheses of the research study.

**Assumption Testing**

The first two hypotheses stated there were relationships between social media engagement and body appreciation, and social media engagement and self-esteem. Pearson correlations was conducted to address these hypotheses. For the Pearson correlations, the assumption of linearity was assessed using a scatterplot between the pairs of variables. The third hypothesis stated that self-esteem moderated the relationship between social media engagement and body appreciation. A Baron and Kenny (1986) moderation analysis was conducted to address this hypothesis. The analyses and related assumption testing were conducted in IBM Statistical Package for Social Sciences version 25. For the moderation analysis, the standard assumptions of regression – normality, homoscedasticity, multicollinearity, and independence of observations were assessed.

The first Pearson correlation was conducted to address the alternate hypothesis stating a statistically significant relationship does exist between social media engagement and body appreciation. Prior to conducting the analysis, a scatterplot between social media engagement and body appreciation was examined to address the assumption of linearity (Figure 1). This assumption must be tested because a linear regression requires the relationships between independent and dependent variables to be linear. The scatterplot indicated the assumption of linearity was met for the two variables because there was no distinct curvature between the pair of variables (Conover & Iman, 1981).



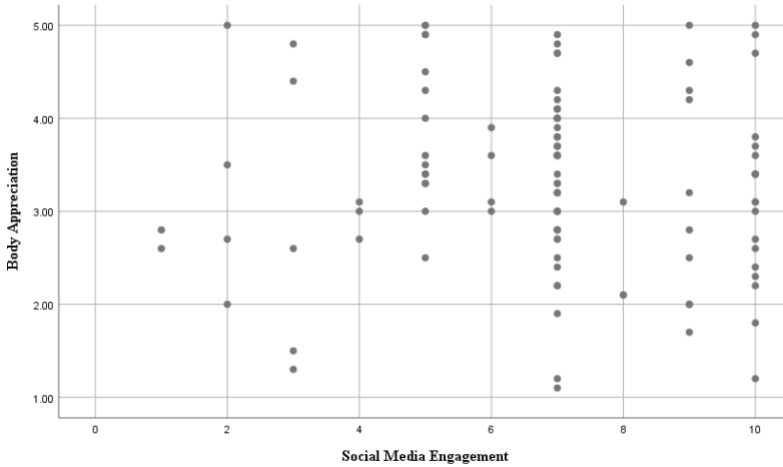


Figure 1. Scatterplot for social media engagement and body appreciation.

The second Pearson correlation was conducted to address the alternate hypothesis stating that a statistically significant relationship does exist between social media engagement and self-esteem. Prior to conducting the analysis, the scatterplot between social media engagement and self-esteem was examined to determine if the assumption of linearity was met (Figure 2). The scatterplot indicated the assumption of linearity was met for the two variables because there was no distinct curvature between the pair of variables (Conover & Iman, 1981).

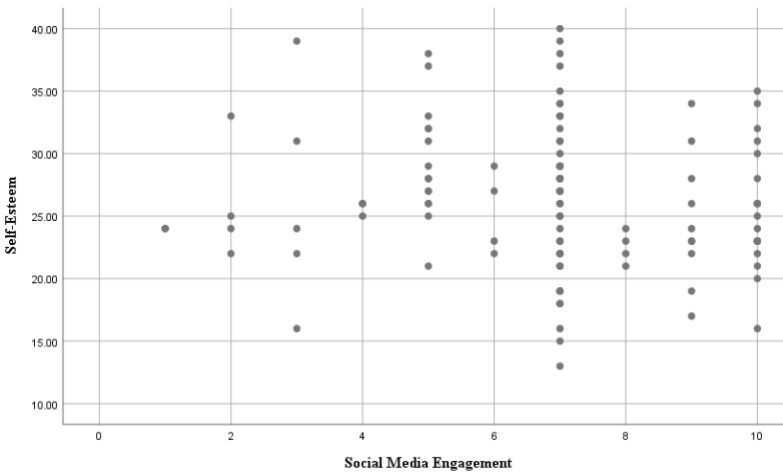


Figure 2. Scatterplot for social media engagement and self-esteem.

To address the third hypothesis, the researcher conducted a Baron and Kenny (1986) moderation analysis to address that self-esteem moderates the relationship between social media

engagement and body appreciation. Prior to conducting the analysis, the continuous self-esteem variable was mean centered (subtracting the mean value) to reduce the potential for multicollinearity (Pallant, 2013). Multicollinearity can occur when correlations between predictor variables are high, which can create redundancies and skew results. The researcher subtracted the sample mean for self-esteem from the individual values for self-esteem. The researcher then created an interaction term by multiplying the independent variable, social media engagement, by the moderating variable, self-esteem. This interaction term was entered into the third block of the hierarchical regression to assess its contribution to the change in body appreciation score.

The assumptions of normality, homoscedasticity, multicollinearity, and independence of observations were assessed before interpreting the results of the moderation analysis. The assumption of normality states that distribution across a sample is normal, and the assumption of homoscedasticity states that the data are evenly scattered. Using the Shapiro Wilk test, the researcher determined that the assumption of normality was met for body appreciation ( $p = .092$ ) and self-esteem ( $p = .296$ ). Table 5 presents the results of the Shapiro Wilk test for normality. The test indicated the assumption of normality was not met for social media engagement ( $p < .001$ ). However, regression analyses are considered robust to violations to normality when the sample sizes are larger than 50 participants (Stevens, 2009). Although the scale for social media engagement contains enough response options to be treated as a continuous variable (Norman, 2010; Sullivan & Artino, 2013), the variable is categorical in nature which contributed to the lack of normality.

Table 5

*Results of the Shapiro Wilk Test of Normality*

	Statistic	df	<i>p</i>
Social Media Engagement	.905	112	.000
Body Appreciation	.980	112	.092
Self-Esteem	.986	112	.296

Homoscedasticity was evaluated using a scatterplot of the regression residuals against the predicted values (Bates et al., 2014; Osborne & Walters, 2002). After evaluation of the scatterplot, it was determined the assumption of homoscedasticity was met because the points in the plot were randomly distributed around ‘0’. Figure 3 presents the residual scatterplot for homoscedasticity.

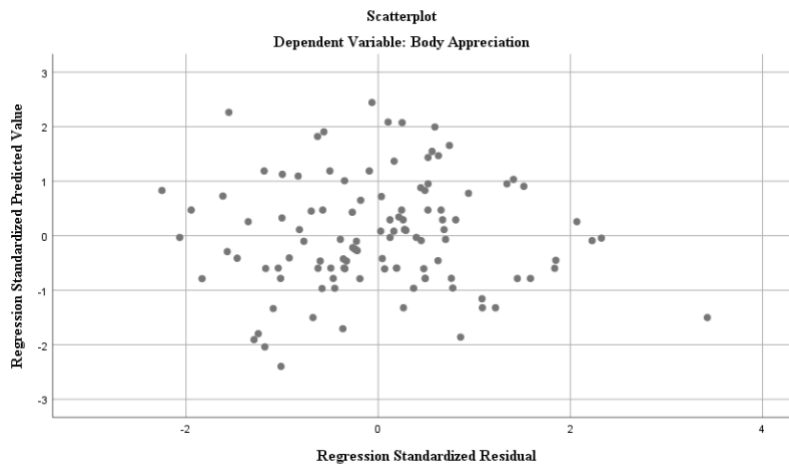


Figure 3. Residual scatterplot for homoscedasticity.

The assumption of multicollinearity was evaluated through evaluation of Variance Inflation Factors (VIFs). VIF values near or in excess of 10 were considered evidence of intercorrelation between the variables included in the regression equation (Menard, 2009). Because the VIF values were between 1.01 and 1.03, the assumption was met. Table 6 presents the results of the test for multicollinearity.

Table 6

*Results of the Test for Multicollinearity*

Block	Variable	VIF
1	Social Media Engagement	1.00
2	Social Media Engagement	1.01
	Self-Esteem	1.01
2	Social Media Engagement	1.03
	Self-Esteem	1.01
	Self-Esteem: Social Media Engagement	1.02

Finally, the researcher conducted a Durbin Watson test to assess independence of observations. For the assumption to be met, the Durbin Watson statistic must be between 1.5 and 2.5. Because the Durbin Watson statistic for the test was 2.46, therefore the assumption was met.

### Hypotheses

#### Hypothesis 1: Pearson correlation between social media engagement and body appreciation

**H1<sub>0</sub>.** A statistically significant relationship does not exist between social media engagement and body appreciation.

For the first Pearson correlation analysis, an alpha value of 0.05, was used to determine if there was a statistically significant relationship between social media engagement and body appreciation. The *p* value exceeded 0.05 indicating there was no statistically significant relationship between social media engagement and body appreciation (*p* = .627). The null hypothesis is only rejected if the *p* value is less than the *α* value, thus the null hypothesis cannot be rejected. The results of this analysis did not support the alternate hypothesis, and there was a weak negative correlation coefficient between the variables (*r* = -0.05).

#### Hypothesis 2: Pearson correlation between social media engagement and self-esteem

**H2<sub>0</sub>.** A statistically significant relationship does not exist between social media engagement and self-esteem.

The  $p$  value exceeded 0.05 indicating there was no statistically significant relationship between social media engagement and self-esteem ( $p = .312$ ). The null hypothesis is only rejected if the  $p$  value is less than the  $\alpha$  value, thus the null hypothesis cannot be rejected. The results of this analysis did not support the alternate hypothesis, which stated that there was a relationship between social media engagement and body appreciation. There was a negative correlation coefficient between the variables ( $r = -0.10$ )

### **Hypothesis 3: Self-esteem moderating the relationship between social media engagement and body appreciation**

**H3<sub>0</sub>**. Self-esteem does not moderate the relationship between social media engagement and body appreciation.

The moderation analysis was comprised of three steps, or blocks. In the first block, the predictive relationship between social media engagement and body appreciation was assessed. The second block was comprised of social media engagement and self-esteem predicting body appreciation. Finally, the interaction term which combined social media engagement and self-esteem was added to the regression model predicting body appreciation.

For a moderating relationship to be established social media engagement must predict body appreciation, and the addition of the interaction term must account for more of the variance in body appreciation than the model without the interaction term (Netemeyer et al., 2001). If those two conditions are not met, moderation would not be supported.

In order to determine statistical significance, the  $p$  values were compared to an alpha of 0.05. The results of the first block with social media engagement predicting body appreciation indicated there was no statistically significant predictive relationship between the two variables,  $F(1,111) = 0.24, p = .627$ . In Table 9, the results of the regression models included in the

analysis are presented, and Table 10 presents the results for the individual predictors. Because moderation was not supported, no further analysis of the regression models was conducted.

Table 9

*Results of the Regression Models included in the Moderation Analysis*

Block		Sum of Squares	df	Mean Square	<i>F</i>	<i>p</i>
1	Regression	0.22	1	0.22	0.24	.627
	Residual	100.34	110	0.91		
	Total	100.55	111			
2	Regression	42.82	2	21.41	40.42	< .001
	Residual	57.73	109	0.53		
	Total	100.55	111			
3	Regression	42.86	3	14.29	26.75	< .001
	Residual	57.69	108	0.53		
	Total	100.55	111			

Table 10

*Results for the Individual Predictors*

Block		<i>B</i>	SE	$\beta$	<i>t</i>	<i>p</i>
1	Constant	3.46	0.29			
	Social Media Engagement	-0.02	0.04	-0.05	-0.49	.627
2	Constant	0.35	0.41		0.84	.400
	Social Media Engagement	0.01	0.03	0.02	0.23	.820
	Self-Esteem	0.11	0.01	0.65	8.97	< .001
3	Constant	0.34	0.41		0.83	.409
	Social Media Engagement	0.01	0.03	0.02	0.26	.796
	Self-Esteem	0.11	0.01	0.65	8.93	< .001
	Interaction Term	0.00	0.01	0.02	0.27	.785

## CHAPTER 5: DISCUSSION

### Overview

In this chapter, study results are summarized, the statistical analysis of data is reviewed, limitations are acknowledged, and future research is suggested. The purpose of this study was to examine the relationships between women's self-reported social media engagement, body appreciation, and self-esteem. Data was collected via online survey to explore relationships among social media engagement, self-esteem, and body appreciation. Prior to the current study, researchers had substantiated the relationship between self-esteem and body appreciation (Choi & Choi, 2016; Duchesne et al., 2016; Koronczi et al., 2013), but findings regarding relationships between body appreciation and social media engagement were conflicting (Yurchisin et al., 2016).

### Interpretation of Findings

The current research involved an investigation of the relationships between women's self-reported social media engagement, body appreciation, and self-esteem. The study followed a cross-sectional, correlational design. Data was collected via online survey, which consisted of the BAS-2 (Tylka & Wood-Barcalow, 2015a), the RSE (Rosenberg, 1979), and a demographic questionnaire (which included a question to assess frequency of social media engagement). The final sample consisted of 119 women. The independent variable was social media engagement, and the dependent variables were body appreciation and self-esteem. Self-esteem also was examined as a moderator.

Regarding social media engagement, most respondents reported engaging with social media at least several times per day, with over 16% admitting to engaging with the platforms "all of the time." Average scores on the BAS-2 (Tylka & Wood-Barcalow, 2015a) revealed that



participants had moderate levels of body appreciation, with an average score of 3.33. This body appreciation score is similar to those reported by Tylka and Wood-Barcalow (2015a), which were 3.61 and 3.47 for college samples of women, and 3.47 and 3.22 for community samples of women. Average RSE (Rosenberg, 1979) scores revealed moderate levels of self-esteem, as an aggregate group, with a score of 26.42. This self-esteem score is slightly higher than those reported by other researchers who have examined self-esteem among groups of women. For example, among a sample of college students, Pop (2016) reported average RSE scores of 23.1. Average baseline RSE scores reported in a study on body image and psychological well-being during obesity treatment were 22.38 (Palmeira et al., 2010).

### **Research Question 1**

The aim of the first research question was to examine the relationship between social media engagement and body appreciation. Results indicated no statistically significant relationship existed between social media engagement and body appreciation. This finding contrasted with those reported from previous investigators who found high levels of social media engagement were associated with poor body image. For example, Santarossa and Woodruff (2017) observed that individuals who spent a lot of time lurking on social media were more likely to be less satisfied with their bodies. Meier and Gray (2014) found that higher levels of posting, viewing, and commenting on Facebook photos were associated with body dissatisfaction among female high school students. Previous researchers have reported on the detrimental effects of social media exposure on college students' body satisfaction (Cohen & Blaszczynski, 2015; Fardouly, Diedrichs, Vartanian, & Halliwell, 2015; Fardouly & Vartanian, 2015). Lastly, Lewallen and Elizabeth Behm-Morawitz (2016) found that women who followed fitness boards

on Pinterest were significantly more likely to engage in social comparison and extreme weight loss behaviors, which are indicators of body dissatisfaction.

This study is not the first to reveal a lack of correlation between social media use and indicators of body satisfaction. Findings were consistent with those reported by Ferguson, Munoz, Garza, and Galindo (2014), who were unable to identify relationships between social media use and poor body image among high school girls. However, this study appears to be the first to fail to identify a statistically significant relationship between *body appreciation* and social media engagement.

Tylka and Wood-Barcalow (2015) defined body appreciation as the ability to accept one's body, hold favorable attitudes toward it, treat it with respect, and reject social ideals that purport physical appearance is the sole form of beauty. The lack of a relationship between social media use and *poor body image* highlights that body appreciation is not simply the opposite of poor body image or equivalent to positive body image.

The construct of body appreciation, or *positive body image*, differs from the construct of poor body image in a fundamental way. It is critical to differentiate between these two constructs in order to understand the lack of significance demonstrated in the current research. This study examined *body appreciation*, but most of the related literature examined in Chapter 2 focused on *body image*. The emphasis on body image in the previous research was largely because body appreciation is still a relatively new and emerging concept in the literature. Thus, findings from the current research on body appreciation were compared to previous research on body image, as this offered the most opportunity to contextualize current findings.

However, body appreciation entails more than just the absence of dissatisfaction with one's physical appearance. Body appreciation requires the *presence* of positive behaviors, such

as intuitive eating and healthy self-esteem (Satinsky, Reece, Dennis, Sanders, & Bardzell, 2012; Tiggemann & McCourt, 2013). Body appreciation involves accepting and respecting one's body, even if there are aspects of it that one wishes to change. In this way, individuals can experience a degree of dissatisfaction with some aspects of their bodies but still possess body appreciation (Halliwel, 2015). Because body appreciation is a construct of its own, this study revealed the presence of body appreciation may not necessarily equate to the presence of strong body image. Further research is needed to understand how body appreciation and body image relate.

### **Research Question 2**

The second question aimed to examine the relationship between social media engagement and self-esteem. Results of the analysis indicated no statistically significant relationship existed between these two variables. The results contradicted findings from other studies that examined similar relationships. When self-esteem and problematic social media use were examined among U.S adolescents, Banyai et al. (2017) found that individuals who demonstrated high levels of social media use were more prone to depression, low self-esteem, and withdrawal. Malik and Khan (2015) also reported that social media engagement was associated with reductions in self-esteem. Importantly, the negative effect of social media engagement on self-esteem is likely related to social comparison behaviors (Lee, 2014; Vogel, Rose, Roberts, & Eckles, 2014). In other words, more frequent social media use is often associated with upward comparison behaviors, which occur when people compare themselves to others they perceive as superior to them in some way (Striegel-Moore et al., 1986). Upward comparisons can be detrimental to self-esteem.

The research study did not support previous research resulting in a statistically significant relationship between social media engagement and self-esteem. It is possible that results from the current study occurred because of differences in research samples or instruments used to assess the constructs of self-esteem and social media engagement.

### **Research Question 3**

Finally, the third question was used to examine whether self-esteem moderated the relationship between social media engagement and body appreciation. Because this analysis revealed social media engagement did not predict body appreciation, the null hypothesis was unable to be rejected, and self-esteem could not function as a moderator of this relationship.

It is unclear how body appreciation and self-esteem may interact. Although findings from the current research did not establish a relationship between body image and self-esteem, previous researchers have substantiated this relationship. For example, Mitchell, Petrie, Greenleaf, and Martin (2012) identified a correlational relationship between low self-esteem and body dissatisfaction among middle-school girls. In another study, Murray, Rieger, and Byrne (2013) stated that high self-esteem was protective of body image. Due to the protective role of self-esteem in body image, higher self-esteem is thought to moderate the effects of social comparisons (Jones & Buckingham, 2005), such as those that often occur with media exposure and social media engagement.

## **Implications**

### **Practical**

The results from this research did not indicate a statistically significant relationship between social media engagement and body appreciation, or between social media engagement and self-esteem. The main implication from the current investigation is that much remains

unknown about social media and its effects on women, in terms of self-esteem and constructs of body image, such as body appreciation. As Lewallen and Behm-Morawitz (2016) explained, “Very few studies have investigated the effects of social media use on female body image” (p. 3).

Assumptions regarding the way social media engagement affects body image are largely based on older research regarding the ways traditional print and television media has historically affected female body image and self-esteem (Cash et al., 1983; Clay et al., 2005; Durkin et al., 2007; Heinberg & Thompson, 1995; Myers & Biocca, 1992; Posavace et al., 1998; Stapel & Schwinghammer, 2004; Stice & Shaw, 1994; Tiggemann & Slater, 2013; Wegner et al., 2000). It may be that print/television media and social media have very different effects on women. For example, social media, despite widespread use of photo editing and filters, consists largely of images of everyday men and women. Social media images are not predominantly represented by models and celebrities, as is the case in most print/television media. Thus, an awareness that the images being viewed are of everyday people rather than models and celebrities may alter the ways viewers internalize and respond to social media images.

Another important practical implication to emerge from this research is that body image and body appreciation are distinct constructs. Body appreciation is not simply the absence of poor body image, but it is a dynamic construct. Even though the constructs appear very similar, researchers and practitioners must remember they are actually quite different from one another. For example, counselors, pastors, or other mental health practitioners working with women with disturbed body image must understand that body image cannot be assessed in the same manner as body appreciation. In addition, treatment plans for these constructs should be different. Similarly, practitioners seeking to improve body appreciation among women may need to

employ different strategies from those used to improve body image. Further research is needed on how assessments and intervention strategies for these two constructs may differ, as this is outside the scope of the current investigation.

### **Theoretical**

Findings from this study expand upon social comparison theory, forcing researchers to reconsider the notion that social media engagement among women is heavily laced with social comparison behaviors. The framework underpinning this investigation was sociocultural theory, which is based on the idea that human development is influenced by social and cultural factors (Vygotsky, 1978). Sociocultural theory purports that societal standards for beauty stress the importance of thinness and other difficult-to-achieve standards of beauty (Tiggeman & Pickering, 1996). In addition, social comparison theory suggests that individuals establish their identities by comparing themselves with others who possess specific, valued attributes (Blue & Festinger, 1954). It also states that individual differences in tendencies to compare oneself with others, to engage in upward comparisons, or to choose inappropriate comparison targets can increase vulnerability to socio-cultural appearance pressures (Striegel-Moore, McAvay, & Rodin, 1986).

Using this framework, the researcher hypothesized higher frequency of social media engagement would be associated with lower levels of body appreciation and self-esteem (via social comparison behaviors). However, the analysis revealed no significant relationships between these variables. The results indicated that higher frequency of social media engagement had no more effect on body appreciation and self-esteem than did low lower frequency of social media engagement.

Even though this study was not to assess social comparison theory, it was considered as part of the framework for the hypotheses. The research results did not fully support the social comparison theory or previous investigations. This study offers a valuable theoretical contribution by suggesting that social comparison behaviors may not be inherent to social media engagement. In addition, social comparison behaviors may vary by the type of social media platform with which users engage.

### **Limitations**

When reviewing the results of this study, readers must consider the limitations related to the data collection procedures and measurement of variables. Limitations of the current research included the self-reported nature of social media engagement, the use of an online survey to collect data, and time constraints.

The first limitation of this study is related to the self-reported nature of social media engagement. Previous research suggests that individuals may be unaware of the amount of time per day that they spend on digital media? (Andrews, Ellis, Shaw, & Piwek, 2015), possibly underestimating their social media engagement and have assessed social media engagement in a number of ways (Rosen et al., 2013). Because social media use was assessed with a 10-point scale, it may have provided participants with too many options or variability in social media use. A scale with fewer points may have produced different data and been less overwhelming to respondents.

Although the online nature of the study survey made the collection of anonymous data quick and efficient, this strategy was not without limitations. There was lack of research control over the participants reporting valid answers and the process of the survey distribution of Survey

Monkey. Even though parameters were established, the researcher still had to remove participants outside the inclusion criteria.

A final limitation of this research was collecting data in a one-time regiment. A longer period of data collection may have resulted in a larger sample size, which would have produced more robust and generalizable results. Even though a longitudinal design would not be appropriate, a longer data collection period might have resulted in more statistically significant results.

### **Recommendations for Future Research**

A number of recommendations for future research emerged from this study. First, future researchers may specifically examine the relationships between body appreciation, self-esteem, and social media engagement among minority women. The current study did not involve an examination of how culture or race may influence the relationships between body appreciation, self-esteem, and social media use. However, it is possible that race or ethnicity moderate these relationships. Research focusing on race of minority women may provide new insights on cultural differences between women as it relates to these variables. Any racial differences in the ways social media use influences body appreciation and self-esteem among minority women could be useful to clinicians who work with minority women struggling with body image concerns.

Secondly, future researchers should specifically delineate between the types of social media usage to more accurately understand the effects on women. As previously mentioned, the effects of social media engagement may be more profound for media driven social media, such as Pinterest and Instagram versus textually driven (such as Twitter). The current study did not distinguish between types of social media engagement; thus, understanding how engagement



with different social media platforms may influence users' body appreciation and self-esteem would provide deeper insights into the ways social media affects users.

In addition to better understanding which social media platforms users are engaging, future researchers may also examine users' self-reported social media engagement more closely. The current study did not specifically examine the nature of social media engagement. The nature of engagement may differ significantly across social media users. For example, the effects of engagement may differ between users who primarily spend their time posting images versus those who spend their time viewing or commenting on images. Understanding how social media behaviors ultimately influence the effects of engagement on body appreciation and self-esteem would provide an additional level of insights on how social media influences users.

Findings from the current study made it clear that body appreciation and body image are very different constructs. Body appreciation cannot just be considered the presence of healthy body image or the absence of poor body image. While the constructs of body image and body appreciation are distinct, they also overlap in some ways; however, the degree of that overlap is unknown. Future researchers could investigate where this overlap occurs and how it may be that individuals can simultaneously possess body appreciation and body image disturbances.

Findings from this study indicated that additional research is needed to better understand how social media engagement relates to social comparison behaviors. Drawing upon findings from previous investigators, the researcher assumed that social media engagement would correlate with social comparison behaviors; however, current results challenged this assumption. Accordingly, future researchers may examine the social comparison behaviors of social media users, with an emphasis on how social comparison behaviors may differ depending on the engagement of social media platforms.

Finally, findings from the current study suggest that differences may exist in the ways social media and traditional print media affect female viewers. Assumptions regarding the effects of social media on body image are largely based on past research that has indicated print media was deleterious to body image. Thus, future researchers may explore differences in the ways social media and print media affect the self-esteem and body image of female users.

### **Conclusion**

The goal of the study was to expand the scientific knowledge by researching the relationships between women's self-reported social media engagement, body appreciation, and self-esteem. The results indicated no statistically significant relationships between body appreciation, self-esteem, and social media engagement, nor was there a statistically significant relationship between social media engagement and body appreciation. Even though there was no statistically significant relationship, body image and body appreciation should be evaluated individually and as distinct constructs. If this is the case, then engagement with social media may naturally have fewer deleterious effects on body appreciation than does exposure to print/television media.

An important understanding to emerge from the current investigation is that much remains unknown about social media and its effects on women, in terms of self-esteem and body image. Even though the research findings did not indicate statistically significant relationships, a large body of current research suggests that women and girls continue to struggle with body image issues (Andrew et al., 2016; Charles & Kerr, 1986; Clay et al., 2005; Elsherif & Abdelraof, 2018; Wykes & Gunter, 2005). Therefore, the limitations of this study help guide future research on the relationships between body appreciation, self-esteem, and social media engagement. Research on body appreciation has the potential to change the way body image is

viewed and studied. Instead of examining body image as a deficit construct, body appreciation provides researchers with opportunities to explore the positive effects of healthy attitudes and relationships with one's body. Rather than focusing on how to correct a disturbed body image, it may be helpful for researchers and practitioners to shift more attention to how body appreciation can be fostered. The current study provides important groundwork and direction for future studies on body appreciation.

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**APPENDIX A: BODY APPRECIATION SCALE-2**



Never

Seldom

Sometimes

Often

Always

**APPENDIX B: ROSENBERG SELF-ESTEEM SCALE**

**ROSENBERG SELF-ESTEEM SCALE**



**APPENDIX C: DEMOGRAPHIC QUESTIONNAIRE**

1. What gender do you identify with?
  - a. Male
  - b. Female
2. How old are you?
  - a. 18 – 25
  - b. 26 – 35
  - c. 36 – 45
3. What is your highest level of education?
  - a. Some high school
  - b. High school diploma
  - c. Some college
  - d. Bachelor's degree
  - e. Graduate degree or higher
4. What is your marital status?
  - a. Single/Never married
  - b. Married
  - c. Divorced
  - d. Separated
  - e. Widowed
5. What is your race?
  - a. White/Caucasian
  - b. African American

- c. Hispanic
  - d. Asian
  - e. Pacific Islander
  - f. Native American
  - g. Other \_\_\_\_\_
6. How often do you use social media (either contributing content/posting/sharing, or consuming content)?
- Never (1)
  - Once a month (2)
  - Several times a month (3)
  - Once a week (4)
  - Several times a week (5)
  - Once a day (6)
  - Several times a day (7)
  - Once an hour (8)
  - Several times an hour (9)
  - All the time (10)



**APPENDIX D: ONLINE INFORMED CONSENT FORM****CONSENT FORM**

Body Appreciation, Self-Esteem & Social Media Engagement  
Stephanie Belton  
Liberty University  
Community Care and Counseling, School of Behavioral Science

You are invited to be in a research study on body appreciation, self-esteem and social media engagement with a goal to better understand the relationships between those constructs. You were selected as a possible participant because you are a United States female between the ages of 18 and 45. Please read this form and ask any questions you may have before agreeing to be in the study.

Stephanie Belton, a student in the Community Care and Counseling program in the School of Behavioral Science at Liberty University, is conducting this study.

**Background Information:** The purpose of this study is to (Research Question 1) examine the relationship between social media engagement and body appreciation, (Research Question 2) examine the relationship between self-esteem and social media engagement, and (Research Question 3) assess the effect of self-esteem on the relationship between social media engagement and body appreciation.

**Procedures:** If you agree to be in this study, I would ask you to do the following things:

1. Participants will complete the pre-screening questions, confirming eligibility to participate in the study. This will take 1 minute.
2. Participants will complete the survey questions. This will take 10 minutes.

**Risks:** The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

**Benefits:** Participants should not expect to receive a direct benefit from taking part in this study.

**Compensation:** Participants will not be compensated for participating in this study.

**Confidentiality:** The records of this study will be kept private. Research records will be stored securely, and only the researcher, faculty member/chair, and dissertation consultant will have access to the records. Data will be stored on a password protected personal computer. The data will be collected online using SurveyMonkey's secure website. Participants will not be asked to provide their names or any identifying information in an effort to protect their privacy. Participants can complete the survey online, which provides an opportunity to complete the survey privately and at their convenience.

**Voluntary Nature of the Study:** Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If

you decide to participate, you are free to not answer any question or withdraw at any time, prior to submitting the survey, without affecting those relationships.

**How to Withdraw from the Study:** If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

**Contacts and Questions:** The researcher conducting this study is Stephanie Belton. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [sabelton@liberty.edu](mailto:sabelton@liberty.edu). You may also contact the researcher's faculty chair, Angel Golson, at [agolson@liberty.edu](mailto:agolson@liberty.edu).

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at [irb@liberty.edu](mailto:irb@liberty.edu). *Please notify the researcher if you would like a copy of this information for your records.*

**Statement of Consent:** I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.