Bryant University

DigitalCommons@Bryant University

Master of Arts in Communication

Graduate Theses

5-2018

Instagram Use and It's Effect on Well-Being and Self-Esteem

Briana Trifiro

Follow this and additional works at: https://digitalcommons.bryant.edu/macomm

Part of the Communication Technology and New Media Commons, and the Psychology Commons

Bryant University

The Graduate School

College of Arts & Sciences

INSTAGRAM USE AND ITS EFFECT ON WELL-BEING AND SELF-ESTEEM

A Thesis in Communication

by
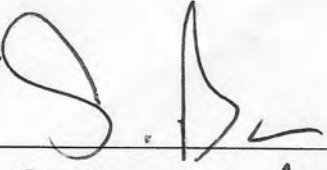
Briana Trifiro
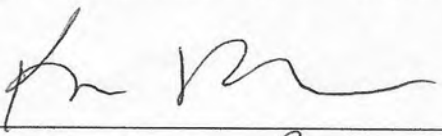
Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts May 2018

FACULTY APPROVAL

The thesis for Briana Trifiro was reviewed and accepted by the following:

Chair of Committee

Signature _____ Date 8/28/18

Print name here STANLEY BARAN

Signature Julie E. Volkman _____ Date 8/28/18

Print name here Julie E. Volkman

Signature _____ Date 8/28/18

Print name here Kevin Pearce

Graduate Program Director

Signature _____ Date 9/5/18

Print name here Chris R. Morse

Master's Committee Page

The thesis of Briana Trifiro was reviewed and approved by the following:

Stanley J. Baran

Professor of Communication

Thesis Advisor

Kevin J. Pearce

Associate Professor of Communication

Chair of the Department of Communication

Julie E. Volkman

Assistant Professor of Communication

Chris R. Morse

Graduate Director, Department of Communication

Abstract

Over the last ten years, social media has become an integral facet of modern society. In particular, image-based social networking sites such as Instagram have become increasingly popular among adolescents and young adults. However, despite this proliferation of use, the literature remains divided regarding the potential impacts of social media, particularly in regards to image-based platforms. The present study sought to analyze the relationship between social media usage patterns and its subsequent effects on user self-esteem and well-being. However, the study's results show that, despite the existing literature, intensity of Instagram use serves as a mediating variable in this relationship. The study's results show that it is intensity of use, not usage patterns, that determine user outcomes. Finally, the results show that users who engage with Instagram more intensely exhibit higher levels of self-esteem and well-being than users who do not use the application intensely.

Keywords: Instagram, social media, active and passive users, well-being, self-esteem, intensity

TABLE OF CONTENTS

Introduction

Over the course of the last ten years, social media has become an integral part of people's everyday lives. It has undeniably changed the ways in which we communicate with one another. While a small handful of social networking platforms were in use at the turn of the century, the advent of Facebook in 2004 launched a new era of how people interact online. Today, users have a wide variety of social media platforms and networks at their fingertips. According to the Pew Research Center, as of January 2018, almost 70% of all adults in the United States have at least one social media account. This is an enormous increase from 2005, when only 5% of adults used social networking sites (Pew Research Center, 2018). This dramatic increase has propelled social media into its current position as a ubiquitous and addictive aspect of modern society.

Currently, there are roughly 1.4 billion active daily Facebook users, making it the most popular social media platform used globally (Facebook, 2018). Not only are more people utilizing social media every day, they spend an ever increasing amount of time engaged with it. On a daily basis, the average user spends almost an hour on Facebook and Instagram combined - more than any other leisure activity surveyed by the Bureau of Labor Statistics, with the exception of television viewing (Stewart, 2016). According to data collected by the Pew Research Center, 45% of teenagers claim that they use the Internet "almost constantly." Further, the data also illustrates the potential effects of social media use on teenage users, with roughly one quarter of respondents reporting that social media has a mostly negative effect on their lives – as it often leads to bullying, unrealistic views of others' lives, peer pressure and the propagation of harmful rumors (Anderson & Jiang, 2018). The proposed study aims to examine the effects that prolonged social media use may have on the overall well-being and self-esteem of young adult and adolescent users.

Literature Review

Introduction

The origins of social media can be traced back to 1995 with the launch of Classmates.com, a social networking site (SNS) designed to help members connect with former classmates and colleagues. The platform was an immediate success, allowing users to connect with one another globally on an instantaneous basis. Inevitably, witnessing Classmates.com's success, other social networking platforms were developed, including, but not limited to Friendster and LinkedIn at the beginning of the 21st century. The development of MySpace in 2003 arguably revolutionized how those online perceived social networking, as it introduced several new features for users to utilize within their online worlds. These features included more ways users could personalize their profiles and public pages. MySpace rapidly became immensely popular among teenagers and young adults worldwide. However, social media became an increasingly prevalent aspect of everyday life when Facebook was launched in 2004 and quickly established itself as the global leader in SNS (Shah, 2016). Facebook is the world's most popular social networking site – possibly explaining why the vast majority of existing scholarly literature focuses almost exclusively on the effects that Facebook use may have on users.

Image-Based SNS

Despite the propagation of social media as a contemporary communication staple, there are still widespread gaps in the knowledge regarding the effects of social networking on its users. Currently, the existing literature focuses primarily on Facebook use, as it is without question the most popular site among users. Conversely, Instagram, a subsidiary of Facebook, remains largely under-researched. The launch of Instagram in 2010 introduced a new chapter in the evolution of

social media as a sizeable and growing number of users utilized image-based social networking platforms to not just connect with members of their social networks but also visually engage with them through online pictures. According to a 2018 study by the Pew Research Center, the most popular social networking sites among teenage users are image and video bases SNS, such as Instagram and Snapchat. The data illustrates that Instagram has become increasingly popular among teenagers, with 72% of respondents reporting using the site – whereas only 51% of ages 13 to 17 use Facebook (Anderson & Jiang, 2018).

This represents a dramatic change in the social media landscape throughout the last few years. Comparatively, the data from the Pew Center's 2014-2015 survey indicates that 71% of teens reported using Facebook on a daily basis. Further, no other platform was used by a clear majority of teens at the time – with about half (52%) using Instagram and 41% reported using Snapchat (Anderson & Jiang, 2018). Undeniably, the data demonstrates that the ways in which teens are using SNS are changing, and it is imperative that users are able to understand the impacts that different platforms may have.

While there appears to be a significant change in how teenagers use social media, existing research has failed to address these changes. Despite a plethora of research conducted examining the impact of Facebook usage on the subjective well-being of users (Burke & Kraut, 2016; Chen & Bello, 2017; Frison & Eggermont, 2015; Hayesz, van-Stolk-Cooke & Muench, 2015; Lin, 2016; Liu, Li, Carcioppolo & North, 2016; Nabi, Prestin & So, 2013; Valenzuela, Park & Kee, 2009; Verduyn, Seungjae, Park, Shablack, Orvell, Bayer, Ybarra, Jonides & Kross, 2015; Verduyn, Ybarra, Resibois, Jonides & Kross, 2017), very little research has been dedicated to analyzing the impact of image-based social media usage.

As identified, image-based social media is becoming increasingly popular among younger users, especially adolescents and young adults. As illustrated by Binns (2014), users' behaviors have the tendency to change in response to the layout and persuasive design of different social media platforms. In a study of nearly 350 teenage girls, participants reported different online behaviors between their Twitter and Facebook profiles. While respondents indicated that they felt more confident on Twitter than Facebook, they also indicated that their Facebook profiles represented the "real me" (Binns, 2014, p. 71). As argued by Binns (2014), the layout and characteristics of a particular social networking site have a demonstrated relationship with the behaviors of users, illustrating why it is important to conduct research on how different social media platforms have the ability to differently impact users. The present study intends to expand our knowledge regarding the impact of image-based social networking sites (SNS), primarily Instagram, and its impact on the self-esteem and well-being of users.

Overview of Instagram

Instagram is a mobile application where users can post photos and videos with attached captions. In response to these posts, other users are encouraged to like, comment, and engage with one another. As discussed, Instagram is one of the fastest growing social media platforms (Anderson & Jiang, 2018; NORC, 2017). However, since it is relatively new, very little research has been conducted on the specific effects that this form of social networking may have on users. As outlined by de Vries, Moller, Wieringa, Eigenraam and Hamelik (2017), Instagram differs greatly from other social networking sites, especially Facebook. The literature indicates that the "centrality of images" on Instagram sets it apart from other forms of text-based social media platforms, such as Facebook and Twitter. Further, as outlined by Johnson and Knobloch-

Westerwick (2016), image-based social media posts have demonstrably different effects on users' moods than text-based social media posts.

In their study, Lup, Trub, and Rosenthal (2015) found that Instagram posts tend to be positively biased, as users engage in positive forms of self-presentation and select positive aspects of their lives to display. While the literature remains sparse, Lup et al. (2015) posit that Instagram posts are generally more positively biased than Facebook posts. This is likely the result of photo editing and enhancing features that create a culture of polishing and perfecting among users. The current literature regarding Instagram use, while sparse, provides a conceptual basis for understanding how image-based social media has the potential to impact users' levels of well-being and self-esteem.

Active and Passive SNS Usage

As evidenced throughout the literature (Ellison & Vitak, 2015; Krasnova, Wenninger, Widjaja & Buxmann, 2013; Tromholt, 2016; Verduyn et al., 2017), there appear to be a significant relationship between social media usage patterns and various subsequent outcomes. While some research has analyzed how frequency of use has the ability to affect users (Ellison & Vitak, 2015), the current study seeks to identify whether the methods by which people use social media have the ability to produce lasting effects on their mental health, specifically through their levels of well-being. In their meta-analytic review, Verduyn et al. (2017) outline the two different usage patterns that users employ online, both actively and passively.

Defined by Verduyn et al. (2017), active social media use occurs when participants actively interact directly with other users' content. These sort of behaviors may include uploading a picture onto Instagram, "liking" someone else's content, or commenting on another's status. Furthermore, the literature highlights positive outcomes that can result from

active engagement on social media. Notably, it demonstrates a significant, positive relationship between positive social relationships and subjective well-being (Myers, 2000).

Passive use, however, may not be as beneficial. Passive use occurs when users "monitor" the accounts of others without engagement (Verduyn et al., 2017, p. 281). Examples include simply scrolling through one's newsfeed or browsing the pictures uploaded by other users. As illustrated in the research, one of the most common outcomes of passive social media use is social envy, which normally occurs as a result of social comparison.

Social comparison occurs when individuals compare themselves or their experiences with those of others (Festinger, 1954). A 2017 study by de Vries et al. analyzed the emotional consequences of social comparison on Instagram among strangers. For their study, the researchers focused exclusively on how content created by strangers was able to impact users. According to the results' findings, positive content that was posted by strangers was negatively correlated with viewers' emotions. The findings of this study indicate that individuals who tend to compare themselves to others reported lower positive affect when they were exposed to more positive posts. This relationship further exemplifies the effects of social comparison theory, which are arguably further enhanced through image-based social networking sites such as Instagram.

As outlined throughout the literature, an additional outcome of social comparison among social media users is social envy. As defined by Smith and Kim (2007, p. 49), social envy is an "unpleasant and often painful blend of feelings characterized by inferiority, hostility, and resentment caused by a comparison with a person or group of persons who possess something we desire." The literature indicates individuals often experience heightened levels of social envy when comparing themselves to others, particularly those that they perceive as superior. These

correlations imply that social media users are much more likely to experience social envy as a result of social comparison theory. The three most frequent generators of this envy emanate from "travel and leisure," "social interactions," and "happiness" (Krasnova et al., 2013, p. 7). In fact, in their study, Krasnova et al. (2013) found that one in three Facebook users reports being resentful of the happiness that their friends express online. While social envy will not be measured in the present study, it explicates a potential outcome of social comparison that is likely to lead to lower levels of self-esteem and well-being among users.

In contrast, there is a plethora of literature that exemplifies how active use has demonstrably positive effects on users. As discussed by Verduyn et al. (2017), while there is extant literature pertaining to the deleterious effects of passive social media use, research indicates that active social media use has been correlated with enhanced levels of subjective well-being. This often results from the creation of social capital and social connectedness that is often promoted through active social media use.

In his seminal book, *Bowling Alone: The Collapse and Revival of American Community*, Putnam (2000) identifies two forms of social capital shown to positively impact subjective well-being – bridging and bonding. Bridging occurs when individuals obtain new information about those in their social networks and bridge the gaps between their peers. Conversely, bonding occurs when individuals receive emotional or instrumental support or companionship from those that they are already connected to. Both of these interactions have the potential to lead to greater feelings of community and self-worth, which the literature has found significantly impact user self-esteem (Ellison, Steinfeld & Lampe, 2007; Frison & Eggermont, 2015; Putnam, 2000; Verduyn et al., 2017).

A study by Ellison and colleagues (2007) focused specifically on how Facebook usage correlated to levels of social capital among users. As a result of their study, the authors posit that there is a positive relationship between Facebook usage patterns and the creation of social capital – where Facebook intensity predicted increased levels of maintained social capital (Ellison et al., 2007). Additionally, results indicated that Facebook usage influenced users' subjective well-being – further enforcing the need to better understand how usage patterns have the ability to impact the mental health of social media users.

In their meta-analytic review, Verduyn et al. (2017) cite Krasnova et al. (2013), who accentuate the relationship between active social media use and creation of individual social capital. This longitudinal study indicated that active Facebook use was found to be positively related to life satisfaction, whereas the opposite was observed for passive Facebook use. Undeniably, the existing literature illustrates a clear, irrefutable relationship between enhanced levels of life satisfaction, overall subjective well-being, and self-esteem and positive SNS use (Ellison et al., 2007; Verduyn et al., 2015; Verduyn et al., 2017).

In addition to social capital, the existing literature identifies social connectedness as a product of active social media use (Allen, Ryan, Gray & Waters, 2014; Verduyn et al., 2017). As conceptualized by Allen et al. (2014), social connectedness refers to an individual's sense of belonging, their well-being and the development of their own identity. Further, the authors posit that social connectedness is an integral aspect in the development of adolescents and young adults. As demonstrated within the research, social connections, including those that are fostered online, have been shown to significantly impact levels of anxiety, loneliness and depression (Allen et al., Caplan, 2003).

In a series of interviews, Davis (2012) analyzed the importance that adolescents place on online exchanges with others. The study revealed that engaging with friends on Facebook fostered a sense of belonging among each of the participants. As described, the study participants reported that they felt that SNS helped them to better connect with their peers, and further fulfilled their need to belong. The existing literature inevitably demonstrates that active social media use - such as commenting, messaging, liking, and so on – is highly correlated with higher levels of social connectedness. As demonstrated, this connection has the potential to significantly impact adolescent SNS users (Ellison et al., 2007; Verduyn et al., 2015; Verduyn et al., 2017).

The present study asserts that through active Instagram usage, users will feel more connected with other users. As illustrated, this social connectedness will in turn lead to enhanced levels of well-being and user self-esteem. The following section will provide a brief overview of the existing literature regarding the relationship between social media use and subjective well-being.

Well-Being

One of the primary variables that has been studied in relation to SNS use is subjective well-being. As defined by Myers (2000), subjective well-being refers to an individual's happiness and overall life satisfaction. According to Myers and Diener (1995), well-being represents an individual's thoughts and emotions. People with low levels of well-being view their everyday occurrences as undesirable and are more apt to experience feelings of anxiety, depression, and anger.

Similarly, as defined by Verduyn et al. (2017), subjective well-being refers to how individuals evaluate their lives. Through their meta-analysis of the literature, Verduyn and colleagues (2017) identify how the literature postulates that subjective well-being is an

important, if not the most important, goal that individuals strive to achieve throughout their lives. For the present study, well-being is conceptualized as one's overall life satisfaction, which will be operationalized through the Satisfaction with Life Scale. This scale has been utilized, as identified in the meta-analysis of the literature by Verduyn et al. (2017), in over a dozen studies similar in nature. As the literature describes, subjective well-being – while a combination of a variety of personal attributes – essentially measures individuals' happiness coupled with their satisfaction with their own lives (Myers, 2000; Verduyn et al., 2017). Finally, the meta-analysis indicates that previous studies have successfully attributed active social media use to higher levels of individual well-being when measured with the Satisfaction with Life Scale (Verduyn et al., 2017).

Beyond the obvious value of a healthy sense of well-being on individuals' evaluation of their own lives, well-being is related to other important aspects of people's existence. For example, there is substantial documentation that heightened subjective well-being results in enhanced health and longevity. Nabi et al. (2013) focused on the relationship between Facebook use, user well-being and physical health. As evidenced by the study's results, a larger number of Facebook friends directly correlated to stronger perceptions of social support, which led to reduced stress levels. The decrease in stress levels resulted in lower levels of physical illness and enhanced subjective well-being. In addition, for users who experienced additional "life stressors," the number of Facebook friends appeared to be a strong predictor of perceived social support – further enhancing user well-being. The authors posit that a heuristic of "the more friends the better" would serve as an accurate explanation of these findings (Nabi et al., 2013, p. 726).

In addition to one's physical health, the literature indicates a significant relationship between social media use and mental health. As illustrated throughout the literature, depression is one of the major outcomes of prolonged social media use. Rosen, Whaling, Carrier, Cheever and Rokkum (2013, p. 1247) examined the relationship between social media use and depression. Their findings indicate that the greater the amount of social media use, as well as the more time users spent engaged in impression management, the more likely they were to exhibit clinical symptoms of depression. This relationship illustrates the severe implications that prolonged social media use can have on users' mental health.

One of the most thoroughly researched areas regarding the effect of social media on users' mental health focuses on the concept of Facebook depression. According to the American Academy of Pediatrics, Facebook depression is "depression that develops when preteens and teens spend a great deal of time on social media sites, such as Facebook, and then begins to exhibit classic symptoms of depression" (O'Keefe & Clarke-Pearson, 2011, p. 802). The literature provides extant evidence that SNS are able to have strong, and often deleterious, effects on the mental health and subjective well-being of young adults – further illustrating the importance of research of this type.

Additionally, research has also found that respondents report higher levels of life satisfaction and overall happiness as a result of not using Facebook for one week (Tromholt, 2016). In a week-long experiment where respondents were instructed to stop using Facebook, 88% of respondents reported feelings of happiness whereas only 81% respondents within the control group reported the same, illustrating a divergence between the two groups. The findings also indicated that respondents who used Facebook were 55% more likely to experiences elevated stress levels. Additionally, those who took a break from Facebook were 18% more

likely to feel present in the moment. Overall, after a week without Facebook, respondents reported that they felt that they wasted less of their time online and had more time to engage in other activities (Tromholt, Lundby, Andsbjerg, & Wiking, 2015). In summary, the existing literature undeniably illustrates how Facebook use has the potential to have adverse effects on users.

SNS Usage Patterns and Well-Being

As previously discussed, the existing research clearly indicates some correlation between social media usage patterns and measurable effect on users, such as elevated levels of social envy or enhanced social capital. In their study, Verduyn et al. (2015) analyzed the relationship between usage patterns and well-being levels among Facebook users. To achieve this, they completed two different studies. The first was experimental, where the authors studied participants passively using Facebook in a laboratory setting. The findings from this study showed that participants were likely to experience sharp decreases in well-being over time as a result of passive Facebook use.

The second study set out to replicate the findings of the first study in a natural setting. To achieve this, 89 respondents were selected and asked to complete an online questionnaire. This questionnaire included scales associated with self-esteem, loneliness, depression and satisfaction with life in order to assess the relationship between usage patterns and overall well-being. The results of the second study proved to be very similar to those of the first – illustrating a relationship in the negative effects caused by passive engagement with Facebook and user well-being. Additionally, the second study found that passive Facebook use could be used as a predictor in determining declines in subjects' perception of their own well-being while active use did not, further illustrating the difference between social media usage patterns. In summary, as a

result of the study by Verduyn et al. (2015), passive Facebook use emerged as a significant predictor for changes in user well-being in both studies.

This work is particularly useful for the present study for an important reason. As a result of their findings, Verduyn et al. (2015) found that variations in well-being changed as a result of controlling for active Facebook use and direct social interaction, rather than as a result of passive usage. This relationship further illustrates the negative relationship between passive use and overall user well-being. Studies such as this provide a thorough theoretical basis for the proposed research, which aims to better understand how different types of Instagram usage have the ability to impact well-being among users.

Self-Esteem

Self-esteem is an incredibly broad and dynamic concept in the field of communication. In order to understand the important variable of self-esteem, it is important to also acknowledge the complex components comprising how individuals ultimately perceive themselves. According to the literature, self-esteem refers to "an individual's overall positive evaluation of the self" (Cast & Burke, 2002, p. 1042). Liu et al. (2016) outline two separate components that comprise an individual's self-esteem. According to the authors, self-esteem refers to both an individual's affective feeling towards themselves (how much they like themselves) as well as their cognitive judgement of their own self-worth. Individuals with higher levels of self-esteem often have more positive views of themselves, whereas individuals who experience low self-esteem may feel uncertain or negative about their self-worth.

As depicted throughout the research, self-esteem is largely representative of individual identity and how users perceive themselves. Therefore, an individual's self-esteem directly relates to his or her own self-concept, a term that transcends a variety of disciplines and has long

invited research (Rosenberg, Schooler, & Schoenbach, 1989). The literature shows that there are often positive outcomes associated with high levels of self-esteem. Further, the literature indicates that self-esteem is comprised of a variety of smaller concepts. Two of these concepts, self-presentation and body satisfaction, are unmistakably related with social media and its impact on users' levels of well-being and self-esteem.

Initially introduced by Goffman (1959) in his seminal work *Presentation of Self in Everyday Life*, self-presentation refers to an ongoing process that individuals engage in on a daily basis. This process occurs when people attempt to influence the impression that others develop of them in an effort to ultimately impact their attitudes and behaviors (Goffman, 1959; Papacharissi, 2002; Smith & Sanderson, 2015). Further, Goffman (1959) posited that people constantly act as performers, as they express their identity through both verbal and non-verbal messages in an effort to display a specific image to others (Smith & Sanderson, 2015, p. 343). The literature indicates that online self-presentation is manifested when users "select what information they want to include in a profile to highlight their most positive qualities" (Zywica & Danowski, 2008, p. 6). According to Nadkarni and Hofmann (2012), self-presentation is one of the predominant reasons people use social networking sites.

These researchers developed what they called the dual factor model of social media use. Their first factor emanates from an individual's need to belong. This need relates to the human desire to associate with others and gain acceptance. This concept translates directly to social media, as users actively attempt to attain and maintain connections with others in an effort to create some form of communal acceptance. The second factor, the need for self-presentation, relates to an individual's ongoing effort to shape how others view him or her. As indicated by their model proposed, social media activity increases users' sense of acceptance, which in turn

increases their self-esteem. Additionally, Gonzales and Hancock (2011) argue that exposure to information presented on one's Facebook profile was correlated with higher levels of self-esteem, particularly when users edit their own information or selectively self-present. This exemplifies how online self-presentation has the potential to impact one's self-assessment.

It is therefore no surprise that, in general, users intend to create positive self-presentations by depicting themselves in the most favorable light (Kramer & Winter, 2008). As outlined by Kramer and Winter (2008), social media provides the opportunity for individuals to create positive portrayals and self-presentations. In a study of 63 undergraduate students, Gonzales and Hancock (2011) found that even simply updating or reading one's own profile on a social networking platform correlated with large boosts in respondents' self-esteem levels. In essence, people use social media as a tool to project their best characteristics. This concept provides part of the fundamental basis for the present study. Because social media allows individuals to present the best version of themselves online, this calls into question what effect these portrayals may have on the emotions and esteem on both posters as well as readers.

For obvious reasons, body satisfaction is a much studied concept in research in self-presentation on SNS. Body satisfaction – and conversely, body dissatisfaction – refers to the subjective happiness or satisfaction that individuals have regarding their appearance. Individual level of satisfaction with their body is primarily dependent on their perception of their own body image. Similarly, body image is a multidimensional construct that "encompasses how individuals think, feel, perceive, and act in regard to their bodies" (Rutledge, Gillmor, & Gillen, 2013; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). As outlined throughout the literature, body image dissatisfaction is an incredibly powerful emotion that can lead to depression, eating disorders and inevitably lower levels of overall well-being (Lawler & Nixon, 2011).

According to Rutledge et al. (2013), there appears to be a positive relationship between an individual's emotional involvement with Facebook and his or her investment with appearance. Further, the authors found that individuals who had more Facebook friends overall had a more positive self-image. Interestingly, the findings from Rutledge et al. (2013) do not indicate that Facebook use was linked to poor body images among respondents, which differs from the existing literature (Knobloch-Westerwick, 2015; Lawler & Nixon, 2011; McLean, Paxton, Wertheim & Masters, 2015). This demonstrates the inconsistencies within the existing literature regarding social media's impact on users' body image and self-esteem levels.

There is, however, extant literature on the relationship between body satisfaction and social comparison. Body satisfaction is naturally related to social comparison, as individuals are likely to construct body ideals based on the comparisons of their bodies to others. For example, Knobloch-Westerwick (2015) analyzes the impact of "thinspiration" on adolescent girls and how they view their bodies. "Thinspiration" – also labelled as the thin ideal – refers to the use of pictures, videos, quotes, songs or other forms of mass media that "inspire" adolescents to lose large amounts of weight to achieve the "ideal body." This thin ideal is often further propagated on social media, especially platforms that are primarily image-based, such as Instagram; further illustrating how Instagram use may have deleterious impacts on users' self-esteem and well-being.

The current literature regarding self-esteem and social media focuses heavily on the impact that image-based social media has on body satisfaction, especially among adolescent girls. McLean et al. (2015) analyzed the relationship between social media use, body dissatisfaction and dietary restraint. Specifically, the authors surveyed one hundred seventh-grade girls regarding their social media use and body-related and eating concerns. The authors

discovered that girls who regularly shared images of themselves on social media reported significantly higher over-estimation of their own size and weight, a more internalized concept of the thin ideal, increased levels of body dissatisfaction and increased dietary restraint than respondents who did not utilize social media. Additionally, the authors found that girls who regularly shared images of themselves were more likely to edit pictures of themselves to look thinner and fit a more idealized body image (McLean et al., 2015). Overall, the literature establishes a relationship between social media usage and negative body satisfaction – highlighting the impact of social media use on perceptions of body image.

As discussed, the literature establishes a strong relationship between social media use and self-esteem. Unfortunately, researchers disagree regarding whether this relationship is positive or negative. For example, the study by Kramer and Winter (2008) was unable to establish any relationship between how users present themselves on social media and their levels of self-esteem. However, as exemplified by the study conducted by McLean et al. (2015), some authors argue that there is some correlation between social media use and users' self-esteem levels. These inconsistencies within existing research clearly demonstrate the need for further study. Additionally, the current literature focuses almost exclusively on how Facebook impacts self-esteem, highlighting the lack of comprehensive research in the field. Thus, the primary goal of the present study is to establish and document the relationship between Instagram usage patterns and subsequent user outcomes.

Impact of Intensity on Users

One final variable that merits mention in the present study is Instagram usage intensity. Intensity, as defined by Ellison et al. (2007), refers to the emotional connectedness to social networking site and its integration into individuals' daily lives. In an effort to measure Facebook

usage beyond the simple aspects of frequency and duration, Ellison and colleagues (2007) developed the Facebook Intensity Scale. In their important piece, these authors analyzed the relationship between Facebook usage intensity and its subsequent impact on generated social capital. The study's findings indicate that the intensity of Facebook use is an important predictor of bonding through social capital. The results illustrate that the more intensely users engaged with Facebook, the greater their reported social capital became. According to the existing literature, by bonding with online peers, users ultimately felt a part of a community, which is often associated with higher levels of both self-esteem and well-being (Ellison et al., 2007; Putnam, 2000; Verduyn et al., 2017). The findings of this seminal piece clearly demonstrate some of the significant and positive effects of intensity of use on social media users.

Additionally, the authors found that Facebook intensity often correlated with increased levels of maintained social capital among users. These heightened levels of social capital have been correlated with enhanced levels of self-esteem (Putnam, 2000), further demonstrating the importance of usage intensity on SNS users. These findings ultimately indicate that social media intensity often serves as a mediating factor in regards to user effects, such as self-esteem and life satisfaction (Ellison et al., 2007; Park & Lee, 2014). A mediating variable, as defined by Baron and Kenny (1986) refers to an outside influence that intervenes in the relationship between an independent and dependent variable. This impact may explicate the relationship or impact between two variables.

Park and Lee (2014) also analyzed the role of Facebook intensity in relation to users' likelihood to engage in impression management online. As posited by the authors, by portraying a socially desirable image of oneself to others, social media users often are able to increase psychological comfort and ultimately attain relational satisfaction. Thus, they hypothesized that

impression management would be positively correlated with levels of Facebook intensity. Further, the authors argued that Facebook intensity would be positively correlated with college students' sense of belonging, a primary component of an individual's satisfaction with life. The study's findings indicate that impression management was significantly associated with Facebook intensity, therefore supporting their hypothesis. Further, the study's results demonstrate a positive association between Facebook intensity and an individual's sense of belonging –illustrating the important influence of usage intensity on social media users.

In summary, the existing literature clearly demonstrates that intensity of SNS use has the potential to have significant effects on social media users. As defined, intensity refers to how heavily users identify with a social media platform. Finally, it merits mention that the study by Ellison et al. (2007) focused on the effects of intense Facebook use. As discussed, Facebook is a text-based platform, whereas Instagram is comprised of images. The current study seeks to expand the current literature regarding intensity of use to better comprehend how intensely using a SNS dominated by carefully crafted and edited imaged may impact users' self-esteem and well-being.

Conclusion

There appears to be some disagreement within the existing knowledge regarding how social media usage patterns impact subsequent user effects, specifically user levels of self-esteem and well-being. Further, the majority of the existing research focuses exclusively on Facebook. While Facebook is indisputably the most popular social media platform with over one billion active daily users, it is losing popularity with the adolescent demographic as an increasing number of teenagers and young adults turn to image-based platforms. According to the Pew Research Center, Instagram has rapidly gained in popularity, particularly among users age 18-24,

with 71% of US based users within this demographic engaged with the site (Smith & Anderson, 2018). Instagram is rapidly becoming the preferred social media platform among adolescents, emphasizing the importance of better understanding its impact on users' levels of well-being and self-esteem. The present study attempts to understand the relationship between different forms of Instagram usage and their subsequent effects on young adult users.

<div align="center">**Rationale and Research Questions**</div>

Based on the existing literature, there are unmistakable relationships between social media use and user levels of well-being and self-esteem. However, while the existing literature aims to identify this relationship, it has yet to fully explain how and why these variables are related. As discussed, Social Comparison Theory asserts that individuals are prone to constantly compare their lives with those of others. Image-based social media, specifically Instagram, provides ample opportunity for individuals to engage in social comparison, as it is rife with carefully crafted and heavily edited images. As argued by Verduyn et al. (2015), the overly flattering manner of social media is designed specifically to create situations of upward social comparison – where individuals compare themselves with others they perceive to be superior to them, and in turn, feel negatively about themselves. This phenomenon provides the theoretical basis for the present study, as it intends to further analyze the role of social media usage patterns and its effects on user outcomes.

The current literature indicates that as a result of active Facebook use, users often experience enhanced levels of social connectedness through the creation of social capital (Verduyn et al., 2017). However, the current literature falls short in its attempt to identify a relationship between active Instagram use and its relationship to user self-esteem. This said, the following research question is proposed:

RQ1: What is the relationship between active Instagram use and self-esteem and well-being?

Further, the existing literature also posits that intensity of social media use has the potential to impact SNS users. As discussed, intensity of use has been correlated with enhanced levels of social capital and bonding among SNS users (Ellison et al., 2007) as well as a heightened sense of belonging and satisfaction with life (Park & Lee, 2014). The nature of social media invites users to engage with one another and create a sense of community. The bridging of weak-ties, coupled with the bonding and strengthening of strong-ties is often accentuated through intense social media use (Ellison et al., 2007; Verduyn et al., 2017). As discussed, these interactions have been correlated in the existing research with heightened levels of social capital, and in turn, higher levels of self-esteem. However, the existing literature focuses predominantly on Facebook, as opposed to an image-based platform, such as Instagram. Thus, the literature clearly suggests that intensity of use is also an important factor in determining user outcomes. As a result, the second research question is proposed:

RQ2: How does intensity of Instagram use impact user levels of self-esteem and well-being?

Methods

Procedure and Sample

Participants were undergraduate students from colleges and universities throughout the United States. Respondents were solicited through postings on both Facebook and Instagram. Utilizing social media as a mechanism to collect data the resultant sample has a higher probability of being representative of the larger population of social media users. Additionally, faculty members at a private New England university were recruited and asked to administer the study's questionnaire to their students in exchange for extra credit points on final exam scores. A total of 411 questionnaires were completed by the end of the collection period, with 359 usable

responses. Of these responses, 122 were male (34%) and 236 were female (65.7%). One respondent preferred not to disclose their gender (0.3%). The average age was 20.06 years.

One additional factor that is worth noting is the impact of Instagram intensity. As demonstrated in the literature (Ellison et al., 2007), intensity has been shown to mediate the relationship between social media use and social capital. As indicated by Ellison et al. (2007), certain forms of Facebook use has been positively correlated with the creation of social capital by bridging connections with other users. Considering that intensity may act as an extraneous variable in the relationship between Instagram usage pattern and self-esteem levels, the present study controlled for it through the use of a partial correlation. The scales that were utilized for this study are described below.

Measurement and Analysis

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (Appendix A) was used in order to measure self-esteem levels among respondents (Rosenberg, 1965). It was selected due to its prominence within the discipline, as it is one of the predominantly used measures to gauge respondent self-esteem levels (Chen & Bello, 2017; Ellison et al., 2007; Liu et al., 2016; Nabi et al., 2013; Rosenberg, 1965; Verduyn et al., 2015; Wang, Yang & Haigh, 2017). Participants were instructed to indicate their level of agreement with 10 statements on a 5-point Likert scale. Examples of statements within this scale include: "I feel that I am a person of worth" and "I feel I do not have much to be proud of" (reverse coded). Scores ranged from 11 to 40 (M = 31.01, SD = 5.71). Cronbach's alpha for the measure was .89.

Instagram Intensity. The Instagram intensity scale (Appendix B) was adapted from a study by Ellison et al. (2007), who originally used the measure to gauge intensity and frequency of Facebook use among respondents. The scale was modified to measure Instagram use rather

than Facebook use. The measure includes self-reported assessments of Instagram behaviors through Likert-scale attitudinal questions designed to measure the extent to which respondents are emotionally connected to Instagram as well as the extent to which Instagram is integrated within their everyday activities. As outlined by Ellison et al. (2007), the Intensity Scale is designed to measure how emotionally connected users are with SNS. This attachment is measured through specific items, such as "Instagram is part of my everyday activity," "I am proud to tell people I'm on Instagram," and "I feel out of touch when I haven't logged onto Instagram for a while." These items, as illustrated by the study by Ellison and colleagues (2007), are designed to gauge the respondent's relationship with the platform, as well as how connected they are to others online.

Scores ranged from 8 to 44 (M = 32.74, SD = 7.58). Cronbach's alpha for the measure was .83. Two particular items from this scale merit mention: the average respondent had between 250 and 400 followers (M = 7.22, SD = 2.48) and spends an average of 45-60 minutes on Instagram per day (M = 3.19, SD = 1.33). These items offer insight regarding how important Instagram is to respondents. As discussed, the research indicates that the average user spends roughly one hour per day engaged with social media, specifically Facebook and Instagram. However, respondents from this study's sample report spending almost an hour a day on Instagram alone, suggesting one of two explanations. First, young adults may be spending more than the reported hour per day online. Alternatively, with one hour per day dedicated to Instagram alone, this may suggest that young adults are migrating to image-based SNS, and using Facebook increasingly less. This finding further illustrates why it is essential that the discipline shift its focus from text-based media such as Facebook, and move towards image-based platforms.

Satisfaction with Life Scale. The Satisfaction with Life Scale (Appendix C) was administered in order to gauge respondent well-being. It was selected because the scale has proven to accurately measure the two components of subjective well-being, affect and life satisfaction, exemplifying the measure's reliability (Diener, Emmons, Larsen & Griffin, 1985; Verduyn et al., 2015). As discussed, this scale has been established throughout the literature – particularly in its effective use in measuring subjective well-being through individuals' reported life satisfaction. The meta-analysis by Verduyn et al. (2017) provides roughly 15 other studies that operationalized overall user well-being with the Satisfaction with Life Scale. The scale includes five Likert-scale items designed to gauge respondents' beliefs about their own life. Examples include "the conditions of my life are excellent" and "if I could live my life over, I would change almost nothing." Scores ranged from 5 to 35 (M = 25.11, SD = 5.89). Cronbach's alpha for the measure was .86.

Passive and Active Use Measure. The Passive and Active Use Measure (Appendix D) was selected in order to measure respondents' different types of Instagram use. This measure was created by Gerson, Plagnol and Corr (2017) in order to identify active and passive usage patterns among respondents. Further, the measure was adapted for the present study to reflect various Instagram activities, rather than those associated with Facebook. The original questionnaire includes 14 items that identify activities Instagram users engage in when they use the application. Respondents are asked to determine how frequently they engage in each activity on a scale of 1 to 5, where 1 represents "never – zero percent of the time" and 5 represents "very frequently – close to 100% of the time." Certain activities have been selected as active usage patterns (i.e.: commenting on other posts) whereas some were selected to represent passive use (i.e.: viewing photos without liking or commenting).

Finally, some items were omitted from the original scale because they were not suitable for the present study (i.e.: "playing games," "creating events" and "RSVPing to events" were removed as these activities do not correlate to functions found on Instagram). After these items were removed, ten total items remained. Five of these items measure active use and five measure passive use. This scale was intended to identify which respondents primarily use Instagram actively as opposed to passively.

Active and passive items were then divided into two separate scales. Active use scores ranged from 5 to 25 (M = 15.03, SD = 3.89). Cronbach's alpha for the active usage measure was .728. Passive use scores also ranged from 5 to 25 (M = 18.32, SD = 3.98). Cronbach's alpha for the measure was .77. Unfortunately, this scale proved to have some major drawbacks, which are discussed in the following discussion section.

Results

Based on the existing literature, two research questions were proposed in an attempt to examine the relationship between Instagram usage patterns and user effects. The first question focused specifically on active Instagram usage and its impact on user well-being and self-esteem. In order to analyze this relationship, a Pearson Product Moment (PPM) correlation was conducted. The results indicate that there is a significant positive correlation between active Instagram usage and user levels of self-esteem [$p < .05$, r = .13] and well-being [$p < .05$, r = .15]. However, while these findings are statistically significant, they may be of only slight practical importance. Considering the existing literature regarding the impact of intensity on users' social capital (Ellison et al., 2007), a partial correlation was subsequently conducted in order to analyze the impact that intensity of Instagram use had on users. Intensity was held constant in order to assess the relationship specifically between active use and self-esteem and well-being. The

partial correlation demonstrated that active Instagram use did not have a statistically significant relationship with either user self-esteem [$p = .40$] or user well-being [$p = .54$]. These findings suggest that intensity of Instagram use may serve as a mediating variable in the relationship between usage patterns and reported user levels of both self-esteem and well-being.

The second research question focused specifically on the relationship between intensity of Instagram use and user outcomes. To test this relationship, a PPM correlation was conducted between user intensity level and reported self-esteem and well-being. The results show a positive significant correlation between intensity and both self-esteem [$p < .05$, $r = .16$] and well-being [$p < .05$, $r = .23$]. While these correlations are small, they offer some definite results regarding the positive correlation between intensity of use and user outcomes. Specifically, the data show that the more intensely people use Instagram, the higher satisfaction with life they experience. This relationship was further demonstrated by a partial correlation, where active use was held constant. In this correlation, active use was held constant in order to assess the relationship between intensity of use and user outcomes without considering the impact of usage patterns. This correlation showed that, even with active use held constant, intensity was still correlated with both user self-esteem [$p < .05$, $r = .11$] and well-being levels [$p < .05$, $r = .18$]. In summary, the results show that, in contrast to the existing literature, Instagram usage pattern is not what determines user effects. In reality, it appears that intensity is the determining factor for user outcomes.

Discussion

As illustrated throughout the existing literature, social media use has the potential to yield widespread effects on adolescents and young adults. Further, there is extant literature indicating that the ways people use social media ultimately determine the extent of these effects. However,

much of this research focuses solely on primarily text-based social media platforms, such as Facebook. Today, a vast majority of adolescents are turning away from these text-based platforms – and instead using image-based networks, such as Instagram. The present study sought to analyze the relationship between Instagram usage patterns and their subsequent effects on young adult users. The relationship between these variables was demonstrated through participants' responses to a series of questions designed to assess their relationship with Instagram and how they felt about themselves.

Since the existing literature is rife with evidence regarding the relationship between passive social media use and its negative impact on users, the present study proposed one research question focusing on the impact of *active* Instagram use on young adults. As discussed, active Instagram use is positively correlated with enhanced levels of user self-esteem and well-being. This means that the more actively participants engage in Instagram, the higher their subsequent levels of self-esteem and well-being. However, this phenomenon was also observed with passive use among respondents, counter to much of the existing literature. Notably, this relationship was eliminated altogether when intensity was controlled. This finding poses a significant, and under-researched theme. As shown through the study's findings, Instagram usage patterns, whether active or passive, do not determine user effects. Rather, the data shows that user intensity level, or how invested users are with SNS, determines subsequent levels of self-esteem and well-being.

These findings raise a variety of questions. The existing literature clearly makes the argument that social media usage patterns have specific subsequent user effects. This research has shown that active SNS use leads to enhanced social capital and a sense of belonging (Ellison, Steinfield, & Lampe, 2007; Krasnova et al., 2013; Verduyn et al., 2015; Verduyn et al., 2017),

whereas passive use often leads to deleterious effects such as low self-esteem and reduced satisfaction with life (de Vries, 2017; Krasnova et al., 2013; Verduyn et al., 2017). However, the findings of the present study suggest that these patterns actually play a relatively unimportant role in determining the effects of social media use. In reality, the data shows that the intensity of use ultimately determines how social media use will subsequently impact users' self-esteem and well-being.

Further, as discussed, the existing literature remains inconsistent regarding the impact of social media use on young adults. While there is extant evidence that social media use is correlated with negative user outcomes (Burke & Kraut, 2016; Chen & Bello, 2017; Frison & Eggermont, 2015; Hayesz et al., 2015; Lin, 2016; Liu et al., 2016; McLean et al., 2013; Nabi et al., 2013; Valenzuela et al., 2009; Verduyn et al., 2015; Verduyn et al., 2017), other studies have struggled to find any effects whatsoever (Kramer & Winter, 2008). The findings from the present study may offer some explanation for this phenomenon. Various studies throughout the existing literature have focused on a variety of aspects of social media use, particularly how usage patterns may impact user outcomes (Allen et al., 2014; Ellison & Vitak, 2015; Krasnova et al., 2013; Verduyn et al., 2017). However, as the findings here suggest, intensity of use serves as the mediating variable between use and outcomes. Thus, perhaps the reason the literature remains inconsistent regarding the effects of social media is because respondents throughout each sample vary in intensity. Serving as the key variable between usage and effects, intensity may ultimately be the factor determining the success or demise of the existing studies.

The existing literature offers some insight regarding the power of intensity. As discussed, a study by Ellison and colleagues (2007) found that Facebook intensity predicted increased levels of social capital among respondents. The authors posited that Facebook, a text-based

platform designed to connect users from across the globe, helps foster social capital as it allows individuals to re-connect with people from their past. For example, the article cites the "strength of weak ties" that is often nurtured through Facebook "friendships" (Ellison et al., 2007, p. 1163). Ultimately, the research indicates that higher levels of intensity have been linked to enhanced levels of social capital. As discussed, social capital is a predominant component of an individual's self-esteem and well-being (Ellison et al., 2005; Putnam, 2007; Verduyn et al., 2017). This suggests that there may be a domino effect at play between these variables, where users who more intensely engage with Instagram often experience heightened levels of social capital, which in turn results in higher levels of self-esteem and well-being.

While there is some literature regarding the role of intensity of use on users (Ellison et al., 2007; Park & Lee, 2014), this area of research is significantly lacking, particularly regarding image-based social media platforms such as Instagram. Future research in this vein may focus on how usage intensity differs between text and image-based platforms. Lup and her colleagues (2015) argue that image-based platforms, such as Instagram, tend to feature more positively biased content than do text-based platforms. Future research may focus on how intensity and user outcomes vary across platforms.

This study has several limitations. One was the incorporation of the Passive and Active Use Measure. Initially, this scale was selected to gauge whether respondents were active or passive users. However, throughout the study, it was evident that these categories are not mutually exclusive. Essentially, users can be both active and passive – even during the same online session. Thus, it is impossible to divide respondents into mutually exclusive groups. This proved to be challenging when answering the first research question. Unfortunately, at the time of data collection, no other measures were available. An effective measure would somehow be

able to classify predominantly active users apart from predominately passive users. The ability to sort users into defined groups would ultimately be more beneficial for quantitative research. Future research may be dedicated to developing a measure designed to analyze the frequency and intensity of use of specific social media usage patterns.

Second, there were some limitations in the study's design. In their meta-analysis, Verduyn et al. (2017) illustrate how the majority of research regarding usage patterns is experimental. In an effort to reach more respondents, the present study relied on a questionnaire and survey research. However, the lack of an efficient and effective scale to measure active and passive social media use proved to be challenging. This said, this study may have benefitted from adding an experimental component where participants were observed engaging with Instagram. This would have allowed researchers to observe specific actions associated with either passive or active use.

Third, a major limitation may resonate from the participants themselves. A call for participants was posted to both Facebook and Instagram. On Facebook, this call was placed in a variety of Facebook "groups" designed to connect business owners, Instagram "influencers," bloggers, and others who are passionate about social media. These respondents may have biased the results. Because these respondents may profit from their Instagram use, undoubtedly they would be more invested than the average user. Second, as individuals who pride themselves on their social media pages, these respondents most likely have higher levels of self-esteem and well-being than the average user.

One final change that may have been considered for this study was its theoretical foundation. At its inception, this study was rooted within Social Comparison Theory, which was selected due to the highly comparative nature of social media. Naturally, users are inclined to

compare themselves with other users, particularly when they are bombarded with highly edited and enhanced photos. However, it may have been beneficial to incorporate some findings of Uses and Gratifications Theory. This theory was originally designed to better understand the gratifications that attract and draw audiences towards their media choices (Ruggiero, 2000). Over the last thirty years, Uses and Gratifications Theory has undergone a systematic progression in accordance with the changing landscape of mass media (Rubin, 2002). Focusing specifically on social networking, where users actually interact and engage with media as opposed to just consume it, research along this line has the potential to revitalize uses and gratification research.

Finally, the current wave of uses and effects research may offer insight regarding how individuals choose what media to engage with. Citing Sun, Rubin and Haridakis (2008), Bryant, Thompson and Finklea (2013) describe the growing relationship between media dependency and the motivation to engage online. Essentially, Sun et al. (2008) found that people who were motivated to use the Internet often experienced more dependency than others. Additionally, the authors argue that motivation and Internet dependency are mediated by how cognitively and affectively involved individuals are with the medium. Thus, uses and effects may illustrate how and why certain individuals are more prone to engage with others more intensely online than other users.

Despite its limitations, this study offers some important insight regarding the relationship between SNS and subsequent user effects. Undoubtedly, an increasingly large number of young adults are moving away from text-based platforms such as Facebook and migrating to image-based networks, such as Instagram and Snapchat. As social media use rises in popularity each year, this begs the question of what is next for modern society. In his seminal work, *Bread and*

Circuses: Theories of Mass Culture and Social Decay, social critic Patrick Brantlinger (1983)

foreshadowed the rise and impact of social media use on the masses:

> But as the public sphere is hollowed out, so is the individual, the meaning of whose existence depends upon participation in a public community. The isolated, narcissistic ego becomes the hero or heroine of every mass-mediated experience, the source and aim of the grandest, most glamorous daydreams and wish fulfillments, in an infinite hall of mirrors. The ideas of image, spectacle, and narcissism share a regressive visual element, moreover, which itself helps to explain how the most progressive cultural techniques can lead to results that point to decadence and barbarism. (p. 259)

While Brantlinger was referring to landscape of mainstream mass media, the message

also applies to modern SNS users' obsession with cultivating their online identity. The existing

literature on this topic points to a number of deleterious effects of this fascination with oneself.

Research indicates how social media has encouraged adolescents and young adults to prioritize

their online lives over their real lives. McLean and her colleagues (2015) focused on adolescent

girls' motivation to post "selfies" online and the impact that these posts can have. Results show

that girls who regularly share images of themselves on SNS report greater dissatisfaction with

their bodies and greater dietary restraint, as well as other negative opinions regarding their own

self-image. Wang et al. (2017) found that adolescents who view "selfies" posted by other users

often experience decreased levels of self-esteem and life satisfaction. Further, frequent image

posting has been correlated with enhanced levels of narcissism and need to feel accepted. These

findings represent only some of the influences that have been shown to result from social media

use among young adults.

Finally, these impacts represent potential avenues for future research. While this study

begins to illustrate the correlation between intensity of use and user outcomes, much is still

unknown regarding this relationship. The existing literature notes that there is a relationship

between Instagram use and depressive symptoms (Lup et al., 2015). Future research could focus

on the psychological and psychosocial impacts of social media use. It may be beneficial to assess the impact of these cultivated images on the mental state of users. For example, does Instagram use increase levels of narcissism, or are individuals who already exhibit high levels of narcissism more likely to use Instagram?

One final avenue for potential research could be the gender differences in user outcomes. The data show that females engage more with Instagram than male respondents, and further, they engage more intensely with the platform. While there were no statistically significant differences in user outcomes between genders, it may be beneficial for future research to further analyze why females appear to be more intense users than males.

The influence of social media has increased exponentially over the last decade. As illustrated by this study as well as the existing literature, these platforms have the undeniable – and unavoidable – potential to have serious lasting impacts on both users and society as a whole, illustrating the necessity to better understand the impact that they have.

References

Allen, K. A., Ryan, T., Gray, D. L., & Waters, L. (2014). Social media use and social connectedness in adolescents: the positives and the potential pitfalls. *Australian Journal of Educational and Developmental Psychology 31*(1), 18-31.

Anderson, M. (2018). Social Media Use in 2018. Retrieved from http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/

Anderson, M., & Jiang, J. (2018). Teens, social media and technology 2018. Pew Research Center. Retrieved from http://www.pewinternet.org/2018/05/31/teens-social-media-technology-2018/

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Binns, A. (2014). Twitter City and Facebook Village: teenage girls' personas and experiences influenced by choice architecture in social networking sites. *Journal of Media Practice, 15*(20), 71-91.

Brantlinger, P. (1983). Bread and Circuses: Theories of Mass Culture as Social Decay. Ithaca; London: Cornell University Press.

Bryant, J., Thompson, S. & Finklea, B. W. (2013). Fundamentals of Media Effects. Long Grove, Illinois: Waveland Press, INC

Burke, M., & Kraut, R. E. (2016). The relationship between Facebook use and well-being depends on communication type and tie strength. *Journal Of Computer-Mediated Communication, 21*(4), 265-281.

Caplan, S. E. (2003). Preference for online social interaction: A theory of problematic Internet use and psychosocial well-being. *Communication Research, 30*, 625–648

Cast, A. D., & Burke, P. J. (2002). A theory of self-esteem, *Social Forces, 80*(3), 1041–1068.

Chen, Y., & Bello, R. S. (2017). Does receiving or providing social support on Facebook influence life satisfaction? Stress as mediator and self-esteem as moderator. *International Journal Of Communication, 11*, 2926-2939.

Davis, K. (2012). Friendship 2.0: Adolescents' experiences of belonging and self-disclosure online. *Journal of Adolescence, 35*, 1527–1536.

De Vries, D. A., Moller, A. M., Wieringa, M. S., Eigenraam, A. W., & Hamelik, K. (2017). Social comparison as the thief of joy: emotional consequences of viewing strangers' Instagram posts. *Journal of Media Psychology, 21*(2), 222-245.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication, 12,* 1143–1168.

Ellison, N. B., & Vitak, J. (2015). Social network site affordances and their relationship to social capital processes. In S. Sundar (Ed.), The Handbook of the Psychology of Communication Technology (pp. 205–227). Hoboken, NJ: Wiley-Blackwell.

Facebook. (2018). Facebook Newsroom Website. Retrieved from http://newsroom.fb.com/company-info/.

Festinger, L. (1954). A theory of social comparison processes. *Human Rations*, 7, 117–140.

Frison, E., & Eggermont, S. (2015). Exploring the relationships between different types of

    Facebook use, perceived online social support, and adolescents' depressed mood. *Social*

    Science Computer Review, 45, 1–19.

Gerson, J., Plagnol, A., & Corr, P. J. (2017). Passive and active Facebook use measure (PAUM):

    validation and relationship to the Reinforcement Sensitivity Theory. *Personality and*

    Individual Differences, 117, 81-90.

Goffman, E. (1959). The presentation of self in everyday life. Garden City, NY: Double Day

Gonzales, A. L., & Hancock, J. T. (2011). Mirror, mirror on my Facebook wall: effects of

    exposure to Facebook on self-esteem. *Cyberpsychology, Behavior & Social Networking,*

    14(1/2), 79-83.

Hayes, M., van Stolk-Cooke, K., & Muench, F. (2015). Understanding Facebook use and the

    psychological effects of use across generations. *Computers in Human Behavior, 49,*

    507–511.

Johnson, B. K., & Knobloch-Westerwick. (2016). When misery avoids company: selective social

    comparisons to photographic online profiles. *Human Communication Research, 43*(1),

    54-75.

Knobloch-Westerwick, S. (2015). Thinspiration: Self-improvement versus self-evaluation in

    social comparisons with thin-ideal media portrayals. *Health Communication, 30*, 1089-

    1101.

Kramer, N. C., & Winter, S. (2008). Impression management 2.0: the relationship of self-esteem,

    extraversion, self-efficacy, and self-presentation within social networking sites. *Journal*

    of Media Psychology, 20(3), 106-116.

Krasnova, H., Wenninger, H., Widjaja, T., & Buxmann, P. (2013). Envy on Facebook: A hidden threat to users' life satisfaction? Paper presented to the 11th International Conference on Wirtschaftsinformatik, Lepzig, Germany.

Lawler, M. & Nixon, E. (2011). Body dissatisfaction among adolescent boys and girls: the effects of body mass, peer appearance culture and internalization of appearance ideals. *Journal of Youth and Adolescence, 40*(1), 59-71.

Lin, J. (2016). Need for relatedness: a self-determination approach to examining attachment styles, Facebook use, and psychological well-being. *Asian Journal of Communication, 26*(2), 153-173.

Liu, J., Li, C., Carcioppolo, N., & North, M. (2016). Do our Facebook friends make us feel worse? A study of social comparison and emotion. *Human Communication Research, 42*(4), 619-640.

Lup, K., Trub, L., & Rosenthal, L. (2015). Instagram #instasad? Exploring associations among Instagram use, depressive symptoms, negative social comparison, and strangers followed. *Cyberpsychology, Behavior, and Social Networking, 18*, 247–252.

McLean, S. A., Paxton, S. J., Wertheim, E. H. & Masters, J. (2015). Photoshopping the selfie: self photo editing and photo investment are associated with body dissatisfaction in adolescent girls. *International Journal of Eating Disorders, 48*(8), 1132-1140.

Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science, 6*(1), 10–17.

Myers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist, 55*(1), 56–67.

Nabi, R. L., Prestin, A., & So, J. (2013). Facebook friends with (health) benefits? Exploring

social network site use and perceptions of social support, stress, and well-being.

CyberPsychology, Behavior and Social Networking, 16(10), 721–727.

Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook? *Personality and

Individual Differences, 52*(3), 243–249.

NORC at the University of Chicago. (2017). Instagram and Snapchat are most popular social

networks for teens; black teens are most active on social media, messaging apps.

Retrieved from www.sciencedaily.com/releases/2017/04/170421113306.htm

O'Keefe, G. S., & Clarke-Pearson, K. (2011). Clinical report – the impact of social media on

children, adolescents, and families. *Pediatrics, 127*, 800-804.

Papacharissi, Z. (2002). The self online: the utility of personal home pages. *Journal of

Broadcasting & Electronic Media, 46*(3), 346-368.

Park, N., & Lee, S. (2014). College Students' Motivations for Facebook Use and Psychological

Outcomes. *Journal of Broadcasting & Electronic Media, 58*(4), 601-620.

Pew Research Center. (2018). *Social Media Fact Sheet.* [Data file]. Retrieved from

http://www.pewinternet.org/fact-sheet/social-media/

Putnam, R. D. (2000). Bowling alone: The collapse and revival of American community. New

York: Simon & Schuster.

Rosen, L. D., Whaling, K., Carrier, L. M., Cheever, N. A., & Rokkum, J. (2013). The media and

technology usage and attitudes scale: an empirical investigation. *Computers in Human

Behavior, 29*(6), 2501–2511.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton

University Press.

Rosenberg, M., Schooler, C. & Schoenbach, C. (1989). Self-esteem and adolescent problems: modeling reciprocal effects. *American Sociological Review*, 54, 1004-1018.

Rubin, A. M. (2002). The uses-and-gratifications perspective of media effects. In J. Bryant & D. Zillmann (Eds.), LEA's communication series. Media effects: Advances in theory and research (pp. 525-548). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication & Society*, 3(1), 3-37.

Rutledge, C. M., Gillmor, K. L., & Gillen, M.M. (2013). Does this profile picture make me look fat? Facebook and body image in college students. *Psychology of Popular Media Culture, 2*(4), 251-258.

Shah, S. (2016). The history of social networking. Retrieved from https://www.digitaltrends.com/features/the-history-of-social-networkingSmith, A., &

Smith, R. H., & Kim, S. H. (2007). Comprehending envy. *Psychological Bulletin, 133*(1), 46–64.

Smith, L. R., & Sanderson, J. (2015). I'm going to Instagram it! An analysis of athlete self-presentation on Instagram. *Journal of Broadcasting & Electronic Media, 59*(2), 342–358

Stewart, J. B. (2016). Facebook Has 50 Minutes of Your Time Each Day. It Wants More. Retrieved from https://www.nytimes.com/2016/05/06/business/facebook-bends-the-rules-of-audience-engagement-to-its-advantage.html

Sun, S., Rubin, A. M. & Haridakis, P. M. (2008). The role of motivation and media involvement in explaining internet dependency. *Journal of Broadcasting & Electronic Media, 52*(3), 408-431.

Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). Exacting beauty: Theory, assessment, and treatment of body image disturbance. Washington, DC: American Psychological Association.

Tromholt, M. (2016). The Facebook experiment: quitting Facebook leads to higher levels of well-being. *Cyberpsychology, Behavior and Social Networking, 19*(11), 661-666.

Tromholt, M., Lundby, M., Andsbjerg, K., & Wiking, M. (2015). The Facebook experiment. *The Happiness Research Institute.*

Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site? Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication, 14*(4), 875–901.

Verduyn, P., Seungjae, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., Ybarra, O., Jonides, J., & Kross, E. (2015). Passive Facebook usage undermines affective well-being: experimental and longitudinal evidence. *Journal of Experimental Psychology, 144*(2), 480-488.

Verduyn, P., Ybarra, O., Résibois, M., Jonides, J., & Kross, E. (2017). Do social network sites enhance or undermine subjective well-being? A critical review. *Social Issues and Policy Review, 11*(1), 274—302.

Wang, R., Yang, F. & Haigh, M. M. (2017). Let me take a selfie: Exploring the psychological effects of posting and viewing selfies and groupies on social media. *Telematics and Informatics*, 34, 274-283.

Zywica, J., & Danowski, J. (2008). The faces of Facebookers: Investigating social enhancement and social compensation hypotheses; predicting Facebook and offline popularity from

sociability and self-esteem, and mapping the meanings of popularity with semantic

networks. *Journal of Computer-Mediated Communication, 14*(1), 1-34.

Appendices

Appendix A

Rosenberg Self-Esteem Scale

Rosenberg self-esteem scale

Please read each statement and record a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past two weeks. There are no right or wrong answers. Do not spend too much time on any one statement. This assessment is not intended to be a diagnosis. If you are concerned about your results in any way, please speak with a qualified health professional.

0 = Strongly disagree   1 = Disagree   2 = Agree   3 = Strongly agree

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

Total score =

Appendix B

Instagram Intensity Scale

Instagram Intensity
The Instagram Intensity scale is used to measure Instagram usage beyond simple measures of frequency and duration, incorporating emotional connectedness to the site and its integration into individuals' daily activities.

Scale Items
1. Instagram is part of my everyday activity
2. I am proud to tell people I'm on Instagram
3. Instagram has become part of my daily routine
4. I feel out of touch when I haven't logged onto Instagram for a while
5. I feel I am part of the Instagram community
6. I would be sorry if Instagram shut down
7. Approximately how many TOTAL Instagram followers do you have? *
8. In the past week, on average, approximately how much time PER DAY have you spent actively using Instagram?**

Response categories range from 1 = strongly disagree to 5 = strongly agree, unless otherwise noted.

*Can be asked as an open-ended (as in Ellison et al., 2007) or closed-ended question. If asked as an open-ended question, Total Instagram followers must transformed by taking the log before averaging across items to create the scale due to differing item scale ranges. If asked as a closed-ended question, a ten point ordinal scale may be used (e.g. 10 or less, 11–50, 51–100, 101–150, 151–200, 201–250, 251–300, 301–400, more than 400). You may wish to adjust these response categories depending on your population, etc.

**Can be asked as an open-ended or closed-ended question. If asked as an open-ended question, Instagram minutes should be measured by having participants fill in the amount of time they spend on Instagram. Then the item should then be transformed by taking the log before averaging across items to create the scale due to differing item scale ranges. If asked as a close-ended question an ordinal scale may be used (e.g. 1= 0-14min, 2=15-29 min, etc). Again, response categories may differ based on population means.

Computing the Scale
The Instagram Intensity score is computed by calculating the mean of all of the items in the scale.

Appendix C

Satisfaction With Life Scale

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

- 31 - 35 Extremely satisfied
- 26 - 30 Satisfied
- 21 - 25 Slightly satisfied
- 20 - Neutral
- 15 - 19 Slightly dissatisfied
- 10 - 14 Dissatisfied
- 5 - 9 Extremely dissatisfied

Appendix D

Passive and Active Use Measure (PAUM)

How frequently do you perform the following activities when you are on Instagram? (Note: Choosing "Very Frequently" means that about 100% of the time that you log on to Instagram, you perform that activity).

- 1 – Never (0%)
- 2 – Rarely (25%)
- 3 – Sometimes (50%)
- 4 – Somewhat frequently (75%)
- 5 – Very frequently (100%)

1. Posting photos to your profile
2. Commenting on other users' photos
3. Sending direct messages to other users
4. Checking to see what someone else is up to
5. Viewing photos
6. Viewing videos
7. Tagging other users in videos
8. Browsing the newsfeed passively (without liking or commenting on anything)
9. Browsing the newsfeed actively (liking and commenting on other users' posts)
10. Looking through my friends' posts

Items should be presented to respondents in randomized order.
Scoring: Items are summed.
Active: 1, 2, 3, 7, 9
Passive: 4, 5, 6, 8, 10