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Social Media Use and Its Impact on Relationships and Emotions

Spencer Palmer Christensen

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Arts

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ABSTRACT

Social Media Use and Its Impact on Relationships and Emotions

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Master of Arts

A large majority of the people throughout the world own a smartphone and access social media on a daily basis. Because of this digital attachment, the author sought to understand to what extent this use has impacted the users' emotional well-being and offline interpersonal relationships. A sample size of 627 participants completed a mixed-methods survey consisting of Likert scale and short answer questions regarding social media use, emotional well-being and interpersonal relationships. Results revealed that the more time an individual spent on social media the more likely they were to experience a negative impact on their overall emotional well-being and decreased quality in their relationships. Emotional well-being also mediated the relationship between time spent using social media and the quality of that user's relationships, meaning that the more time a person spent on social media the more likely their emotional well-being declined which then negatively impacted their relationships. The top three responses for negative effects of social media use on emotions were frustration, depression, and social comparison. The top three responses for negative effects of social media use on interpersonal relationships were distraction, irritation, and decreased quality time with their significant other in offline settings. An analysis of these, and other, results, along with relative implications, are discussed.

Keywords: social media, emotional well-being, interpersonal relationships, uses and gratifications

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Introduction

Social media use is a ubiquitous phenomenon (Elhai, Levine, Dvorak, & Hall, 2016; Pittman, & Reich, 2016; Quinn, 2016). Research shows that 90% of adults own a smartphone (Pew Research Center, 2014). Additional research indicates that 72% of Americans and an average of 43% of the world own a smartphone (Elhai et al., 2016) while more than 71% of American adolescents, ages 13-17, regularly use Facebook (Beyens, Frison, & Eggermont, 2016). Facebook is the most popular social networking site in the world containing 1.5 billion active users with at least 900 million of these logging into the site daily (Ryan, Chester, Reece, & Xenos, 2014). Pittman and Reich (2016) synthesized these findings to indicate that 91% of smartphone owners used social networking sites on their phone at least once every day.

Due to the prevalence of social media in our lives, the people of the world are more interconnected than at any other time in history. Because of this, there could be a perception that people are happier because they are connected with more people. In fact, Nezelek, Richardson, Green, and Schatten-Jones (2002) found that participants who were more socially active [offline] reported greater life satisfaction and higher psychological well-being. However, social interaction in the virtual world tells a different story, especially when those online connections impact our offline interpersonal relationships.

Throughout the past decade, social media use has grown exponentially and has changed the way we communicate with each other. Facebook is the most used online media platform in the world (Beyens, Frison, & Eggermont, 2016; Steers, 2016) and has a high potential for impacting the emotions and relationships of adolescents who use it (Kross et al., 2013). The primary purpose of this paper is to determine if a relationship exists between excessive social media use and the overall emotional well-being of that individual as well as the quality of the

individual's interpersonal relationships. The secondary purpose is to determine if the relationship between time spent on social media and the quality of the interpersonal relationships is mediated by the emotional well-being of the user such as fear of missing out (FOMO), anxiety, depression, and loneliness as seen through the lens of uses and gratifications theory.

Literature Review

Uses and Gratifications Theory

The most common theory used to understand why people engage with social media is uses and gratifications theory (U&G). This theory was first proposed by Elihu Katz and his partners Jay Blumler and Michael Gurevitch in 1973 and was used to study the motives people have for engaging with the media that they do in order to gratify their needs (Katz, Blumler, & Gurevitch, 1973). U&G is a psychological communication perspective and theorizes that individuals are actively engaged in seeking out media that they believe will satisfy certain needs (Katz et al., 1973; Rubin, 2009). U&G posits that media consumers make their own choices on which media and what type of media they consume in order to receive maximum gratification for their needs (Alajmi et al., 2016). To summarize, U&G focuses on consumers' motives for using specific types of media and the satisfaction they receive from their use.

People make their own decisions on which media to engage with in order to satisfy their needs, however those needs are not always obtained. Often times, the gratifications sought are not the same as the gratifications obtained and although strongly correlated, continued use of a medium over time implies that the gratifications obtained strongly reinforce continued use of that same medium in order to continue seeking the gratifications originally sought after (Levy & Windahl, 1984; Palmgreen, Wenner, & Rayburn, 1980).

Blumler and Katz (1974) synthesized U&G by explaining that it was focused on social and psychological needs that create certain expectations of mass media which lead to particular patterns of media exposure and result in need gratification as well as other consequences, although these other consequences are perhaps unintended. Blumler et al. (1974) further explained that there were five main components to U&G:

1. The audience is believed to be active
2. The linking of gratification and media choice lies with the consumer
3. The media compete with other sources of gratification
4. The goals of mass media are derived from the content created by the consumers
5. Value judgments of mass media should be suspended while consumer orientations are explored

While uses and gratifications theory was once used to explore the gratifications gained from TV and radio use, it has since been adapted for the study of social media and its various elements such as gratifications from Facebook use (Park, Kee, & Valenzuela, 2009; Quan-Haase & Young, 2010), privacy regulations online (Quinn, 2016), Chinese social media apps (Gan, 2018), social capital (Petersen & Johnston, 2015), and motivations for social media use (Cheung, Chiu, & Lee, 2011), among others which all contribute to the credibility of using this theory for the purposes of the present study. Further evidence supporting the use of this theory to study social media is that the five main components of U&G proposed by Katz et al. (1974) can be applied to social media use. U&G is widely considered a pro-social theory that highlights the benefits for using various types of media and some of those benefits are worth taking the time to examine.

Benefits of Social Media

With a large portion of the world accessing social media on a daily basis, there is ever-increasing evidence that social media offer a varied experience for each user and that some of those experiences produce positive results. These benefits offer possible explanations as to why social media usage is continuing to grow throughout the world. One of the most common reasons that people use social media is to stay connected with their friends and family members

(Pempek, Yermolayeva, & Calvert, 2009; Subrahmanyam, Reich, Waechter, & Espinoza, 2008; Wang, Tchernev, & Solloway, 2012). Social media offer an easy way of keeping in touch and maintaining relationships with people who are often beyond the close proximity of frequent communication. Subrahmanyam et al. (2008) added to this by suggesting that many social media users use it to both connect and reconnect with others indicating that there was overlap between participants' online and offline networks. However, the overlap was imperfect; the pattern suggested that many online users engaged in different online contexts to manage various parts of their offline connections.

Online profiles often reflect some version of the offline lives they represent. In these online profiles, social media users express certain elements of themselves that they want others to see. In other words, the user manipulates the preferences of their profile to build an online identity (Pempek et al., 2009). In addition to helping establish an online identity, social media use also offers gratification in certain emotional, cognitive, social, and habitual areas of the users' lives (Wang et al., 2012). Generally however, only some of these areas are fully gratified leading to an accumulation of ungratified needs which drives subsequent social media use and contributes to the user becoming addicted or, at the very least, using social media excessively unless those needs are satisfied in offline situations.

Desired gratifications on social media often drive the behaviors that lead to those gratifications. Hayes, Carr, and Wohn (2016) explored the meaning that "liking" a post on Facebook (or a "favorite" on Twitter, etc...) had for both the original poster and the one who "liked" the post. The results of the study indicated that people devalued Facebook "likes" owing to the fact that they were more reactionary than conscious. Favorites on Twitter did not matter because it was more about the content than the social capital. Liking on Instagram was more

selective. Receiving upvotes on Reddit contributed to the social currency of the post making it more trustworthy and accepted by other redditors.

Additionally, findings from the study by Hayes et al. (2016) revealed four main motivations for sending a paralinguistic digital affordance (PDA—aka “liking,” or “favoriting” a post) and three main gratifications for receiving a PDA. The motivations for sending a PDA included: literal interpretation—the PDA was an evaluation of the content; acknowledgement of viewing—the PDA served as an acknowledgement to the poster that they had seen the post; social support—the PDA served as a way of saying that you supported the person in their endeavors; and lastly utilitarian purposes—the PDA served as a personal score card to make themselves feel better about sending out so many PDA’s to so many people. On the flip side, those who originally sent the post received three main gratifications from PDA’s: emotional gratification—participants reported feeling happy when they received a PDA; status gratification—the more PDA’s their post received the higher their social status; social gratification—PDA’s served to create or enhance interpersonal relationships (Hayes et al., 2016).

The results from Hayes et al. (2016) explained that there were various gratifications people received from using social media. However, additional research will help to further illuminate this phenomenon. Oeldorf-Hirsch and Sundar (2016) explored motivations for why people share photos online. The participants were asked questions regarding why they share photos online and the results revealed four categories of gratifications: seeking and showcasing—the need to keep up with the world and keep tabs on others; technological affordances—the features of the platform make it easier to share; social connection—maintaining close relationships and creating new relationships; and reaching out—wanting to reach a wide audience and receive feedback on their photos. These findings indicate that photo

sharing is driven by social needs and that the platform offered special affordances that enabled the behavior (Oeldorf-Hirsch & Sundar, 2016).

Interactions on social media have frequently been referred to as bridging and bonding social capital (Ellison, Steinfield, & Lampe, 2007; Putnam, 2000). Bourdieu and Wacquant (1992) define social capital as “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (p. 14). As it relates to social media, social capital is the relationships established online that enrich virtual interactions. Bridging and bonding are often placed as opposites to each other, but this would be an incorrect assumption of these concepts. Rather, they are relatable dimensions along which different forms of social capital can be compared. Bridging social capital is composed of several elements including: connecting with people who think differently from ‘me;’ ties are generally weaker and more fragile, but they allow for more open doors that bonding does not allow; more likely to foster social inclusion; good for linking external assets and information diffusion; good for getting ahead; and can generate a broader range of identities. Examples include: loose connections, lesser-known classmates at school, LinkedIn connections, and your brother’s boss, among others. Bonding social capital is comparable, but with key differences: connecting with like-minded individuals; ties are stronger and are usually kept within a smaller circle of connections; fosters social exclusion due to strong in-group loyalty; good for getting by; and can be referred to as an echo chamber of individuals who think alike without opposing ideas. Examples include: families, closed group forums, and fraternities (Putnam, 2000).

When a user engages with others on social media they incorporate both bridging and bonding techniques in order to maximize the benefits of their social media usage in the form of

social capital. Essentially, the better well-established an individual's social capital is the greater their realm of influence online. However, users must also exercise caution when connecting with others so that they do not become too vulnerable by over-exposing their personal information. Quinn (2016) found that there were four valid concerns about sharing personal information online: information control—controlling the amount of information you send out to other people; power loss—when you share your personal information with others they gain some degree of power over you; identity loss—perceived damage; future life of information—perceived likelihood of harm. Considering these levels of privacy, it is interesting to see how these privacy behaviors affect the way users engage with others on social media as well as how those online behaviors impact the relationships that are formed both on social media and in the physical world.

Interpersonal Relationships in a Digital Age

Interpersonal relationships are relationships that take place between two or more people and can include both online (thanks to the Internet) and offline interactions. Although important and worth the time to explore, the present study does not examine online relationships in depth. Rather, this study is interested in understanding how individuals use the Internet, in particular social media, and to what extent it affects their offline interpersonal relationships. Some research suggests that social media are already changing the way that we interact with each other offline. Chotpitayasunondh and Douglas (2016) coined a new term known as “phubbing” which represents “the act of snubbing someone in a social setting by concentrating on one's phone instead of talking to the person directly” (p. 10). They found that this “phubbing” behavior was growing increasingly more commonplace and acceptable and that people were beginning to see this once-thought-of-as-rude behavior as normal. The extent to which people would phub others

was directly related to their level of smartphone addiction. As the proclivity of cell phone use increases, the likelihood of phubbing occurring more frequently will also increase leading to a more permanent change in the way we interact with each other.

Hertlein (2012) noted that the Internet provides increasingly blurred boundaries between online and offline relationships. In a study seeking to understand the role of technology in changing family relationships, Hertlein (2012) found that the rules of interaction with online peers had several negative effects on daily life such as compromising the function of offline relationships, detracting from job performance, and increasing the potential for Internet addictions. Coinciding with these findings, Abbasi and Alghamdi (2017) found that misusing Facebook can lead to negative societal consequences such as social isolation, distrust in relationships, infidelity, lack of social cohesion, Facebook addiction, and divorce.

Our online and offline relationships have grown to become so interconnected that what we do in either of those relationships impacts the other. Kerkhof, Finkenauer, and Muusses (2011) called this phenomenon a “syntopia” explaining that the physical/social situations and history of a person influenced what they did and learned online which spilled over into their offline experiences. Under this lens, Kerkhof et al. (2011) found that those with high compulsive Internet use experienced decreased quality in their offline relationships, reported decreased commitment in their relationships, and had more frequent conflicts with their partners.

Conversely, Jenkins-Guarnieri, Wright, and Hudiburgh (2012) found that those with lower levels of perceived competency at initiating offline relationships was related to increased use of Facebook. Additionally, heavy social media users have decreased interpersonal competency at initiating offline relationships meaning that the more a person uses social media the harder it is for them to initiate new relationships offline. Supporting these findings, Seo,

Park, Kim, and Park, (2016) revealed that a person who had developed a dependency to their cell phone experienced decreased attention and increased depression which led to a negative impact on their social relationships with their friends. Even when people would hide their online addictions or relationships from their partners they still reported that daily tasks were unfinished and that levels of sexual intimacy with their primary partner had decreased (Underwood & Findlay, 2004).

Social media do not only impact our relationships with others, they also impact our relationship with ourselves and how we perceive the world around us. Kerkhof et al. (2011) found that compulsive Internet users were lonelier, more depressed, and generally exhibited poorer social skills than noncompulsive Internet users indicating that these negative characteristics were brought about by their overuse of the Internet. Additional research revealed that overuse of social networking sites significantly affects the lives of adolescents with negative consequences on their personal, psycho-social well-being (Marino, Vieno, Pastore, Albery, Frings, & Spada, 2016). Finally, Seo, Park, Kim, and Park, (2016) claimed that the more problematic mobile phone addiction becomes, the more people will experience decreased self-esteem and emotional well-being.

From the aforementioned research, it is clear that our use of social networking sites influences our offline relationships and vice-versa. To further explore the depth to which social networking sites affect our emotions, four psycho-sociological problems will be placed under scrutiny.

FOMO and Anxiety

Fear of missing out (FOMO) is the psychological mentality that individuals might be missing out on a social opportunity or situation. This mentality requires that they stay constantly

connected with others and updated about what their friends are doing (Beyens et al., 2016; Elhai et al., 2016). The need for these individuals to stay constantly connected with their peers has led to problematic smartphone use. A side effect to overusing a smartphone is decreased emotional self-control which is defined by two processes: decreased cognitive reappraisal (inability to assess your mental or emotional state in a different way) and increased emotional suppression (suppressing one's emotions often leads to a buildup of pressure and stress) both of which lead to an inability to regulate emotions properly (Elhai et al., 2016). Elhai et. al (2016) argued:

Overusing one's smartphone does not account fully for depression or anxiety; rather, other intervening variables may play a role. Specifically, less behavioral activation and (for depression only) more emotion suppression appear to account for this relationship. Problematic smartphone use may interfere with other pleasurable activities and disrupt social activities thereby reducing behavioral activation and subsequently increasing depression. It is possible that emotional suppression, a correlate of problematic use, disrupts adaptive processing of emotions, which in turn is associated with greater depression (p. 514).

While depression will be discussed in greater detail later on, this comment suggests that it is not social media itself that is causing these mental problems, but rather the misuse/overuse/abuse of it by those who use it.

In a study conducted by Lai, Altavilla, Ronconi, and Aceto (2016), an EEG brain scanner was used to detect the parts of the brain that were illuminated when the participant was exposed to certain images. In this study they examined FOMO, social inclusive experiences, and social exclusive experiences. Their findings showed that those with higher FOMO ratings were more aware of the state of mind of others involved in positive social interactions and they showed a

higher need for self-approval which could be the reason why people keep returning to social media (Lai et al., 2016).

Closely related to FOMO is anxiety which manifests itself frequently in the lives of those who use social media and experience FOMO. Cheever, Rosen, Carrier, and Chavez (2014) sought to explore when anxiety manifested itself in the lives of college students who were separated from their cell phones. After collecting reasons each participant used their cell phone and acquiring data for how long each participant uses their cell phone for the activities they mentioned, the researchers found that the average amount of time each college student spent on their phone each day was 13 hours and the top listed reasons for their use, in order from most used to least used, were as follows: texting, listening to music, visiting websites, talking on the phone, using email, watching TV/movies, playing games, and reading books. The amount of time for each activity was averaged together and divided into three categories of low daily usage (1-7 hours), moderate daily usage (7.5-16.5 hours), and high daily usage (17-64.5 hours).

The findings of the study revealed that those who were low daily users experienced little to no anxiety while taking the surveys. Those who were moderate users initially experienced high anxiety due to the increased length of time to complete the second survey compared to the time spent to complete the first survey, but the anxiety plateaued during the third survey. For the high daily usage group there was a significant increase in the length of time spent to complete each of the three surveys indicating that anxiety increased over time and continued to rise (Cheever et al., 2014). These findings had less to do with whether or not the person was separated from their phone and more to do with how heavy of a user they were. This study highlights that people who use their phones excessively will experience high anxiety when they are separated from them. This could explain why those who have their cell phones with them and

use them regularly will experience high rates of anxiety when they are separated from being active on social media.

Depression and Loneliness

Along with FOMO and anxiety, depression and loneliness contribute to the mental health problems caused by social media use. One study found that many high school and college students are dealing with anxiety and depression rates that are five times higher than youth who were studied during the Great Depression era (AP, 2010). There have been many theories as to why this might be the case, but several scholars believe that heavy social media use, such as Facebook and Instagram, may contribute to this growing problem (Tandoc, Ferrucci, & Duffy, 2015). In countries where social media use is high, reports show that loneliness and depression have increased dramatically within the past decade (Pittman & Reich, 2016). There is no doubt that increased social media use and higher rates of depression and loneliness are linked.

Tandoc et al. (2015) conducted a study where they found that heavy users of Facebook experienced higher levels of Facebook envy than light viewers and that they reported feeling more symptoms of depression. The study also found that heavy Facebook users engaged in Facebook surveillance, which was akin to lurking, and that this behavior was mediated by envy (Tandoc et al., 2015). In other words, those who were heavy Facebook users experienced higher levels of envy and depression which caused them to engage in Facebook surveillance because the more they saw on Facebook the more they wanted and the worse they felt.

Depression and loneliness go hand in hand with each other, but they are not the same thing. Pittman and Reich (2016) expounded on the relationship between depression and loneliness by surveying 253 students asking them about their experiences with image-based social media platforms (Instagram and Snapchat) vs. text-based social media platforms (Twitter

and SMS texting). Their findings indicated that solely image-based platforms led to a happier, more satisfied, less lonely life because images offered the intimacy that a face-to-face conversation contains allowing the viewer to feel a stronger connection with the situation being presented in the image. Text-based platforms showed no relationship to increased or decreased psychological well-being (Pittman et al., 2016). These results might possibly explain one way to overcome loneliness, however, one can still feel depressed without feeling lonely and vice-versa. Loneliness is the lack of shared companionship with someone else. Depression is an internal emotion experienced by oneself. When these two feelings are combined with social media use it can cause a person to feel socially isolated and paralyzed to the point where they don't think they can do anything to get out of their situation.

Rosenthal, Buka, Marshall, Carey, and Clark (2016) conducted a longitudinal study that examined families and their negative experiences on Facebook. Results indicated that all of the negative Facebook experiences that were measured were significantly associated with depressive symptoms (Rosenthal et al., 2016). This study is different from the others previously cited in the present study because it deals with actual negative experiences causing depressive symptoms as opposed to users comparing their lives with the good and happy lives they see on social media and then choosing to feel depressed from it. Either way, the use of Facebook can cause an increase in feelings of depression and isolation leading to loneliness.

There is a lot of research that has been conducted on how social media use affects the individual who is using it for good or bad. A lot of research has also been conducted on why people choose to engage with the types of media that they do. However, there is very little research on how an individual's choice to engage with certain types of media influences their emotions and how those emotions then impact their offline interpersonal relationships. Based on

this analysis the author posits three research questions and several hypotheses in order to better understand these phenomena:

Research Questions/Hypotheses

RQ1: How does the use of social media influence the quality of the user's interpersonal relationships?

RQ2: How does the use of social media influence the user's overall emotional well-being?

RQ3: Why do people use social media?

H1a: Increased time spent on social media will lead to decreased overall quality of the users' interpersonal relationships.

H1b: High frequency of accessing social media will lead to decreased overall quality of the users' interpersonal relationships.

H2a: Increased time spent on social media will lead to the user's decreased overall emotional well-being.

H2b: High frequency of accessing social media will lead to the user's decreased overall emotional well-being.

H3a: Emotional well-being mediates the relationship between time spent on social media and the overall quality of the users' interpersonal relationships.

H3b: Emotional well-being mediates the relationship between frequency of accessing social media and the overall quality of the users' interpersonal relationships.

Method

This study incorporates a mixed-method approach which includes a survey of quantitative Likert-like questions and several qualitative short answer questions. The sample for this study included social media users between 18-62 years of age. A survey was built in Qualtrics and distributed on Facebook pages, sub-Reddit accounts, and Twitter from 9 February—9 March 2018. The sub-Reddit accounts where the survey was posted included: “SampleSize,” “SaltLakeCity,” “Australia,” “AnythingGoesNews,” and “GradSchool.” All who desired to participate were invited to do so. The sample size for this study was 750 participants of whom 627 completed the survey.

The survey is made up of several scales. The first scale was adapted from Olufadi’s (2016) ‘SONTUS’ which measures time spent on social media and has a Cronbach’s alpha of .92. The participants answered two questions regarding their social media use: “I use social media ___ each week (never, once, 2-3 times, 3+ times)” and “Each time I use social media I typically use it for 0-10 min. 11-30 min. 30+ min. These questions were used in order to determine if the participant was a high or low social media user as well as how frequently they accessed social media each day.

The second scale was adapted from Rosenberg (1989) which includes 10 items and is used to measure the emotional well-being of an individual. This scale was selected because it has been tested to provide a high reliability and generalizability due to its sample size of over 5,000 participants. This scale is measured on a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) and all 10 of the following questions were used with no alterations:

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
4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of
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
9. I certainly feel useless at times
10. At times I think I am no good at all

The final portion of the survey is built from two separate scales which were combined to study the quality of the participants' interpersonal relationships. The first portion comes from Hendrick's (1988) 7-item Interpersonal Relations Scale which was adapted to match the format of Garthoeffner, Henry, & Robinson's (1993) 49-item Modified Interpersonal Relationship Scale. Both scales are measured using a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) and includes the following questions that were originally separated into multiple categories and have been adapted for the purposes of this study:

Interpersonal Relations Scale (Hendrick, 1988)

1. How well does your partner meet your needs?
2. In general, how satisfied are you with your relationship?
3. How good is your relationship compared to most?
4. How often do you wish you hadn't gotten into this relationship?
5. To what extent has your relationship met your original expectations?

6. How much do you love your partner?
7. How many problems are there in your relationship?

Modified Interpersonal Relationship scale (Garthoeffner, Henry, & Robinson, 1993).

Trust

1. There are times when my partner cannot be trusted
2. My partner would tell a lie if he/she could gain by it
3. In our relationship, I have to be alert or my partner is likely to take advantage of me
4. My partner is honest mainly because of a fear of being caught
5. I'm better off if I don't trust my partner too much
6. Even though my partner provides me with many reports and stories, it is hard to get an objective account of things
7. There is no simple way to decide if my partner is telling the truth
8. In our relationship, I am occasionally distrustful and expect to be exploited
9. My partner can be counted on to do what he/she says they will do
10. I do not believe my partner would cheat on me even if he/she could get away with it
11. My partner can be relied on to keep his/her promises
12. My partner treats me fairly and justly
13. The advice my partner gives cannot be regarded as being trustworthy
14. I am afraid my partner will hurt my feelings
15. My partner pretends to care about me than he/she really does
16. My partner is likely to say what he/she really believes rather than what he/she thinks I want to hear

17. I wonder how much my partner really cares about me

18. I believe most things my partner says

Self-disclosure

1. I can express deep, strong feelings to my partner

2. I feel comfortable expressing almost anything to my partner

3. In our relationship, I feel I am able to expose my weaknesses

4. I do not show deep emotions to my partner

5. I share and discuss my problems with my partner

6. I tell my partner some things of which I am very ashamed

7. It is hard for me to tell my partner about myself

8. I talk with my partner about why certain people dislike me

9. We are very close to each other

10. In our relationship, I'm cautious and play it safe

11. I discuss with my partner the things I worry about when I'm with a person of the opposite sex

12. I'm afraid of making mistakes with my partner

13. I touch my partner when I feel warmly toward him/her

14. It's hard for me to act natural when I'm with my partner

Genuineness

1. My partner really cares about what happens to me

2. It is safe to believe that my partner is interested in my welfare

3. My partner is truly sincere in his/her promises

4. My partner is sincere and practices what he/she preaches

Empathy

1. My way of doing things is apt to be misunderstood by my partner

2. I feel my partner misinterprets what I say

3. I sometimes stay away from my partner because I fear doing or saying something I might
regret afterwards

4. My partner doesn't really understand me

5. I sometimes wonder what hidden reason my partner has for doing nice things for me

Comfort

1. I seek my partner's attention when I'm facing troubles

2. I would like my partner to be with me when I'm lonely

3. I feel comfortable when I'm alone with my partner

4. I would like my partner to be with me when I receive bad news

5. I feel relaxed when we are together

6. I face life with my partner with confidence

Communication

1. I listen carefully to my partner and help him/her solve problems

2. I understand my partner and sympathize with his/her feelings

Several of the questions are asked negatively and were reverse-coded during final analysis of the data. In the survey provided in Appendix A the reverse-coded items are all in italics.

Also included in this survey are several short answer questions offering additional insights into why people use social media and what their perceptions are of how social media is affecting their emotions and their relationships. These short answer questions were developed by the author and they bring a qualitative element into this study thus forming it into a mixed-methods study which helps to strengthen it by combining it with quantitative data because a combination of these two methods is stronger than each one separately (Wisdom & Creswell, 2013). The four short answer questions include:

1. Why do you use social media?
2. Does your use of social media influence your emotions? If so, how?
3. Does your use of social media influence your relationships? If so, how?
4. Explain what you think it would be like to go one week without using your cell phone or accessing any social networking sites.

The quantitative data were analyzed using the statistical software known as SPSS. The independent variables are the amount of time spent on social media and the frequency with which the individual accessed the social networking sites. The dependent variables are the quality of the interpersonal relationships and the emotional well-being of the individual. Emotional well-being also served as the mediating variable between the amount of time spent on social media and the quality of the user's interpersonal relationships. The qualitative questions were coded by creating categories based on the answers of the participants and were grouped

together in a table. To test for reliability, the survey was examined by and distributed to professors to make sure that the items on the survey worked for the purposes of this study.

Altogether, the survey consists of 73 questions including 4 qualitative short-answer questions, 64 quantitative Likert scale questions, and 5 demographic questions. The demographic questions asked about age, gender, ethnicity, romantic relationship status, and romantic relationship length. The fourth qualitative question “Explain what you think it would be like to go one week without using your cell phone or accessing any social networking sites” was omitted during data analysis because it was found to be irrelevant to the direction of the study.

Results

The sample size for this study was 627. The average age for the participants was 28.36 with 510 participants being between the ages of 18-34 and 117 of the participants being between the ages of 35-62. There were 373 (59.5%) female participants with 246 (39.2%) male participants and 8 (1.3%) who preferred not to identify with a gender. The ethnicity of the participants was as follows: White/Caucasian = 543 (86.6%), Hispanic = 14 (2.2%), Latino = 4 (.6%), African = 7 (1.1%), African American = 7 (1.1%), Asian = 14 (2.2%), Native American = 2 (.3%), Native Hawaiian or Pacific Islander = 4 (.6%), European = 15 (2.4%), Other = 17 (2.7%). The status of the participants' relationships were as follows: single, never married = 198 (31.6%), currently in a relationship = 153 (24.4%), married = 259 (41.3%), divorced = 13 (2.1%), separated = 4 (.6%). Finally, the length of time that participants were in the relationship they said they were in is as follows: not currently in a relationship = 145 (23.1%), less than one year = 72 (11.5%), between 1 and 3 years = 117 (18.7%), between 3 and 7 years = 119 (19.0%), between 7 and 10 years = 52 (8.3%), and more than 10 years = 122 (19.5%). Of this sample, 278 (44.3%) participants indicated that they spend 0-10 min. on social media each time they access it, with 255 (40.7%) spending 11-30 min. and 94 (15%) spending 30+ min. Lastly, 55 (8.8%) participants said that they access social media at least one time daily, 131 (20.9%) accessed social media 2-3 times daily, and 441 (70.3%) access social media 3+ times every day. Those who said that they never use social media were removed from the study as the author was not interested in studying those who did not spend time on social media (*see* Tables 1-7).

Hypothesis 1a stated that increased time spent on social media would lead to decreased overall quality of the users' interpersonal relationships. A Spearman's rho correlational analysis was conducted to examine the relationship between the amount of time spent on social media

and the quality of the user's interpersonal relationships. The analysis was significant, $r(627) = -.09, p < .05$ (see Table 8). Chronbach's alpha was reported as $\alpha = .95$. These tests verified that for participants who spent more time on social media the quality of their interpersonal relationships decreased, thus H1a was fully supported.

Hypothesis 1b stated that increased frequency of accessing social media would lead to decreased overall quality of the users' interpersonal relationships. A Spearman's rho correlational analysis was conducted to examine the relationship between how frequently an individual accessed social media and the quality of their interpersonal relationships. The analysis was not significant, $r(627) = -.04, p > .05$ (see Table 8), indicating that how frequently an individual accessed social media did not impact the quality of their relationships. Thus, H1b was not supported.

Hypothesis 2a stated that increased time spent on social media would lead to the user's decreased overall emotional well-being. A Spearman's rho correlational analysis was conducted to examine the relationship between the amount of time spent on social media and the user's overall emotional well-being. The analysis was significant, $r(627) = -.115, p < .001$ (see Table 8), indicating that for those who spent more time on social media their emotional well-being decreased. In other words, social media contributed to the user experiencing negative emotions and moods. Thus H2a was fully supported. To further support H2a, a one-way analysis of variance (ANOVA) was calculated on how much time a user spent on social media and their emotional well-being. The analysis was significant, $F(2, 624) = 6.39, p = .002$ (see Table 10). Participants who spent 30+ min. on social media per session experienced the greatest decrease in their emotional well-being ($M = 3.57, SD = .92$) compared to those who spent 11-30 min. ($M = 3.77, SD = .84$) or those who only spent 0-10 min. ($M = 3.91, SD = .73$; see Table 9). To verify

these results, a Bonferroni Post Hoc test was conducted to find the mean difference between those who spent 0-10 min. on social media and those who spent 30+ min. ($MD = .333^*$, $SE = .096$, $p = .002$; *see* Table 11). Once again, H2a was fully supported.

Hypothesis 2b stated that high frequency of use on social media would lead to the user's decreased overall emotional well-being. A Spearman's rho correlational analysis was conducted to examine the relationship between how frequently an individual accessed social media and their overall emotional well-being. The analysis was not significant, $r(627) = -.01$, $p > .05$ (*see* Table 8), indicating that how frequently an individual accessed social media did not impact their emotional well-being. Thus H2b was not supported.

The author also proposed that emotional well-being could serve as a mediator to the relationship between time spent on social media and relationship quality, as well as mediate the relationship between the frequency of using social media and relationship quality. Using a conditional process modeling program called PROCESS (Hayes, 2008, 2013), the author ran a hierarchical regression analysis to test H3a and H3b, which posited that emotional well-being could serve as a mediator for the relationship between social media use and relationship quality. In H3a, the PROCESS tool revealed that the predictor—time spent on social media—and the outcome—relationship quality—were mediated by emotional well-being, $F(1,625) = 11.80$, $p = .0006$. Time spent predicted the mediator (emotional well-being) along path A at a significant value, $r = .14$, $p < .001$; $b = -.1601$, $t(625) = -3.44$, $p = .0006$. The mediator then affected the quality of relationships along path B at a significant value, $r = .37$, $p < .001$; $b = 2.73$, $t(624) = 8.52$, $p < .000$. This significance is greater than the original relationship between the time spent and the quality of the relationships (path C'), $r = .08$, $p < .05$; $b = -.03$, $t(624) = -.82$, $p > .05$. Thus, H3a was fully supported (*see* Table 12).

“In H3b, the PROCESS tool revealed that the predictor—frequency of social media use—and the outcome—relationship quality—was not mediated by emotional well-being, since path A was not significant, $b = -.04$, $t(625) = -.82$, $p > .05$. Thus, H3b was not supported (see Table 12).

Based on these results, the author was able to create models to map the regression between the mediator (emotional well-being) and the independent and dependent variables which are included below:

Figure 1

Emotional well-being mediates the relationship between time spent on social media and the overall quality of the users' interpersonal relationships (supported).

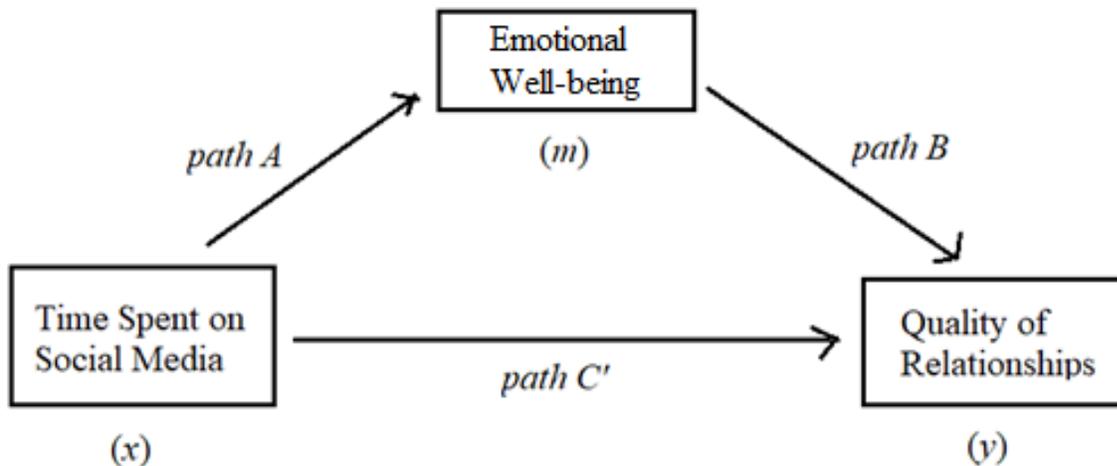
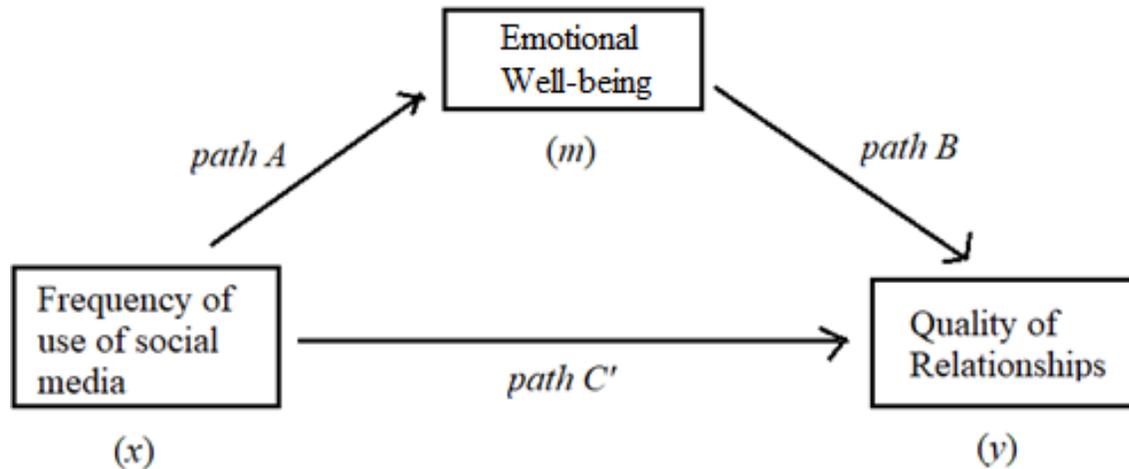


Figure 2

Emotional well-being mediates the relationship between frequency of accessing social media and the overall quality of the users' interpersonal relationships (not supported).



The three research questions provide the qualitative part of this study and will now be analyzed. Each of the short answer questions from the survey were coded and categorized based on a reading of the participant's responses to each question. Upon completion of the coding, some categories were grouped together to form a more cohesive understanding of the topic being discussed.

RQ1 explored the role that social media played in influencing interpersonal relationships. In the survey, the question was phrased "Does your use of social media influence your relationships? If so, how?" Of the 750 partially complete surveys, 643 participants answered this question (*see* Table 13).

Of the 643 participants who answered this question, 929 responses were recorded due to the participants' responses being placed into multiple categories. The most common response was that social media use did not influence their relationships. There could be several reasons for this. One possible explanation is that the question was too vague for an adequate response to be

warranted leading to the response of “no, it does not influence my relationships.” A second possibility is that those who responded this way were telling the truth and social media does not influence their relationships. Previous research, and data found in this study indicate that this is likely not the case, but without the ability to contact the participants and ask them, these results are inconclusive. Finally, a third possible explanation is simply survey fatigue as this question was presented at the end of the survey and the participants were likely tired of answering questions.

The remaining data are more concrete. For the negative results, 380 participants responded that social media negatively impacted their relationships by affecting various elements of their lives (*see* Table 13). The most common response for the negative effects of social media on relationships is that it distracts the user from engaging in face-to-face interactions with other people or activities, thus making the user less social offline. The second most popular response to this research question included that social media use made the user more edgy, irritated, impatient, jealous, judged, ignored, or wanting to escape in their relationships. The last notable responses for the impact social media use has on the user’s relationships included that they spent less quality time with their significant other offline and that they spent more time comparing their relationship to those they saw online thus resulting in a decreased overall satisfaction in their own relationship.

The positive results were similar, in that 331 participants responded that social media played a positive role in their relationships, with the exception of the category “Happier in my relationships with less time on social media” due to the fact that the relationship was benefitted by reducing the amount of time spent on social media so as to spend more quality time offline with their significant others. The top response for this section was that social media allows for

people to “keep in touch” with their relationships, especially with close friends and family members. Other top answers for this section include that social media use strengthened their relationship in some way and they used it to share images, gifs, memes, or videos that they thought their significant other would appreciate.

RQ2 examined the role that social media played in influencing the emotional well-being of the user. In the survey, the question was phrased “Does your use of social media influence your emotions? If so, how?” Of the 750 partially complete surveys, 668 participants answered this question (*see* Table 14).

Of the 668 participants who answered this question, 1,294 responses were recorded due to the participants’ responses being placed into multiple categories. The categories of “FOMO,” “Anxiety,” “Depressed,” and “Lonely” were used because they had been shown to be influenced by the use of social media in the past (Elhai et al., 2016; Cheever et al., 2014; Tandoc, Ferrucci, & Duffy, 2015; Pittman & Reich, 2016, respectively). “Depressed/sad” was the category with the most responses of these four (115). 127 participants responded that social media did not influence their emotions. The majority of the participants experienced negative emotions from their use of social media with the largest negative category (153) being that social media influenced them to feel frustrated, annoyed, irritated, distracted, or stressed with 115 of the participants responding that they felt depressed or sad from their use. Social comparison (107) was the third most popular response followed by life dissatisfaction (84) and anger (57) or wasted time (57). In addition to the remaining categories found in Table 14, other emotions were mentioned throughout the responses that are worth mentioning, however, they were not abundant enough to merit their own category. These additional negative emotions include: doubt, worry, and being frightened or scared.

The happy/positive category holds the highest number (152) of responses for users who reported receiving benefits from using social media indicating that their use of social media influenced them to feel happy or positive from their interaction online. Several participants responded that humor (43) was an affected emotion indicating that their use of social media caused them to laugh or that the content they viewed was funny to them. Similar to RQ1, a small number (31) of responses indicated that people were happier when they spent less time on social media. This study includes a lesser-known term called “Mudita (23),” or sympathetic joy, which is a Buddhist term for finding joy in the happiness and success of others (Salzberg, 1995). This concept is the opposite of *schadenfreude* which is the pleasure we feel due to another’s misfortune. Mudita was selected because there is no word in the English language that encapsulates the idea of sympathetic joy, and it became a category because several participants responded that they were happy for their friends or family members when they saw good things happen to them such as getting married, graduating from school, or starting a new job. For Mudita to be real, the observer cannot receive any direct benefit from the other person’s success; the observer is simply happy for the other because of their success with no reward on behalf of the observer. The common scenario used to describe this idea is the happiness a parent feels for the success of their child (U Pandita, 2006).

RQ3 was simpler than RQ1 and RQ2 as it merely dealt with reasons why people use social media. RQ3 was phrased “Why do you use social media?” Of the 750 partially complete surveys, 680 participants answered this question (*see* Table 15).

Supporting what has been established in previous research, the top reason as to why people use social media is to connect with friends and family on a regular basis (461). According to this data set, the second most common response was to read/watch the news (188), but seeing

as a large portion of this sample came from Reddit, this is not surprising because Reddit is a large news aggregate. Other reasons that people use social media are to find fun/entertaining content (176), learn something new (91), because they are bored (77), to waste time (59), to create or share content (55), for work/business (48), to escape their offline life or emotions (43), and to learn about and participate in local events (25).

Discussion

The primary purpose of this study was to determine if a relationship existed between excessive social media use and the overall emotional well-being of that individual as well as the quality of the individual's interpersonal relationships. A mixed-methods survey was distributed on Facebook and Reddit and a sample size of 627 participants completed the survey. The quantitative results were analyzed using SPSS and the qualitative responses were coded into categories.

The results from H1a revealed that the more time an individual spent on social media the more the quality of their relationships decreased. This supports findings by Kerkhof et al. (2011) who also found that those with high compulsive Internet use experienced decreased offline relationship quality. Results from H1b revealed that the number of times a user accessed social media, or the frequency, did not play a significant role in altering their relationships. This is somewhat surprising considering that the majority of the participants (70.3%) responded that they accessed social media more than three times each day (*see* Table 2). However, upon further consideration, these results are akin to picking up the TV remote and idly flipping through the channels. By spending only a few seconds on each channel the viewer is not affected very greatly, but if the viewer were to stop and watch one of the shows on TV, the content of that show would be more influential on the viewer. These findings also support Hertlein (2012) who found that interaction with online peers contributed to compromising the function of offline relationships and increased the potential for Internet addictions. To summarize, a person may access social media several times each day to respond to messages, check notifications, or even lightly browse their feed, but their frequency of use is not as important as how long they spend

using social media which serves as a much more influential factor in altering their thoughts that eventually lead to a change in the way they interact with others.

The results for H2a found that excessive use of social media was correlated with decreased overall emotional well-being of the user. This supports Seo et al. (2016) who found that cell phone dependency, and by extension social media usage, led to decreased attention and increased depression which negatively impacted their social relationships. Cell phone addiction also contributed to declining self-esteem and emotional well-being. Although counterintuitive, staying connected to the world through the use of cell phones actually makes us more isolated in the more important areas of our lives such as spending time face-to-face with those in our close proximity.

The results found in H2a also support several other studies that have examined various effects of social media use on emotions. Seo, Park, Kim, and Park, (2016) found that a person who had developed a dependency to their cell phone experienced decreased attention and increased depression which led to a negative impact on their social relationships with their friends. They also claimed that the more problematic smartphone addiction becomes the more people will experience decreased emotional well-being and increased anxiety (Seo et al., 2016; Cheever et al., 2014). Kerkhof et al. (2011) found that compulsive Internet users were lonelier, more depressed, and generally exhibited poorer social skills. Lastly, Tandoc et al. (2015) found that heavy Facebook users experienced higher levels of envy and depression causing them to engage in Facebook surveillance because the more they saw on Facebook the more they wanted and the worse they felt.

The results for H2b revealed that frequency of social media use had the same impact on emotional well-being as it did on relationships from H1b: none. The frequency of accessing

social media has little to do with relationships or emotions, but the amount of time spent on social media serves as the more important variable that has a more direct impact on the quality of the relationships of the user and their overall emotional well-being. In spite of this, it is possible that frequently accessing social media, even for short periods of time, disrupt the free flow of thought that leads to deeper thoughts and personal awareness. One participant remarked on this thought by saying, “social media takes away from critical time to be alone with oneself and not being distracted by something. I think social media usage results in a mental health decline not because it results in a feeling of being left out from seeing what everyone else is up to, but because people feel the need to be entertained constantly and don't know how to be by themselves anymore.”

The secondary purpose to this study was to determine if the relationship between time spent on social media and the quality of the interpersonal relationships could be mediated by the emotional well-being of the individual using social media. Conclusive results from H3a revealed that emotional well-being did indeed serve as a mediator for time spent on social media and the quality of that user's interpersonal relationships. To summarize, there is a direct inverse link between time spent on social media and emotional well-being as well as relationship quality separately. Also, when emotional well-being is introduced as the mediator, the direct relationship between time and relationship quality disappears and a new link forms between time on social media and relationship quality through emotional well-being and it turns into an indirect inverse relationship.

Expressed in simple terms, when a person spends excessive amounts of time on social media they likely experience decreased emotional well-being, which contributes to them experiencing decreased quality in their relationships. The results from H3a mean that when a

person uses social media for long periods of time their emotions are negatively impacted. After the person is done using social media they carry their negative emotions with them and they play a role in how the user interacts with others offline. This interaction is not always negative, but the quality of that interaction is less than it could have been because the negative emotions the user brought with them from their social media use impacted that interaction. Seo et al. (2016) found similar results in their study revealing that a person who had developed an addiction to their cell phone experienced increased depression which led to a negative impact on their social relationships with friends.

Moving on to the qualitative portion of this study, the three research questions offered an in-depth look at what takes place within the minds of those who use social media. For RQ1, the top response for negative results is that social media distracts the users from engaging in wholesome activities and with people who are offline. This happens frequently when groups of friends visit a restaurant together and one or all of them spend the majority of their time on their cell phones without speaking to each other during the course of their visit. Chotpitayasunondh and Douglas (2016) referred to this phenomenon as phubbing which is where people snub, or ignore, others by using their phones. The results from RQ1 (*see* Table 13) support Abbasi and Alghamdi (2017) who found that misusing Facebook can lead to negative societal consequences such as social isolation, distrust in relationships, lack of social cohesion, and Facebook addiction. Further supporting this claim, one of the participants in the present study responded: “I notice a difference in me and my partner’s behavior when we are on social media for long periods of time during any given day. We are less patient and a lot more anxious or on edge. We are more likely to misunderstand each other or start an argument. We tend to be a lot more lazy.”

The third most popular response for RQ1 was that the quality time spent with people offline was diminished because of their social media usage. This response directly supports H1a because it shows that people are aware that their social media use plays a role in harming the quality of their relationships. One participant summarized the entire purpose of this study perfectly,

When I use it too much I am inclined to think badly of myself and of the world. I am also more irritable with my children when I am currently using social media and they need me.

Other notable responses further support these results. 42 participants stated that they compare their relationship with relationships they see online leading to them feeling more dissatisfied in their current relationship. This response was also found to be in the top three for RQ2. One participant hit the nail on the head when they said, “my monster of comparison, when it was raging, my marriage would really suffer because I would get angry at what we didn’t have and not be grateful for what we do have. This would make [my husband] feel like a failure and bad because he couldn’t provide any of it at the time.” This participant felt that her social media use put a strain on her relationship with her husband, even when he was not using social media, because she was comparing her life to those she saw online. This is one of the many examples found in this study that demonstrate this effect.

Other negative effects that participants said resulted from their social media use included increased distrust towards others, increased isolation, increased emotional detachment, and increased unrealistic expectations (*see* Table 13 for full list).

Although the data from RQ1 strongly indicate that social media are a terrible influence in the lives of users, they are not completely negative. In fact, the most popular reason people use

social media is to keep in touch with close friends and family members (Pempek, Yermolayeva, & Calvert, 2009; Subrahmanyam, Reich, Waechter, & Espinoza, 2008; Wang, Tchernev, & Solloway, 2012) and the responses in the present study support this claim. Participants also indicated that social media were used to strengthen their relationships with people they were close to through connecting and chatting with them, sharing memes and gifs, and receiving updates on their lives that allow for opportunities to bond. Several participants even said that social media help them to form new relationships that they never would have otherwise.

This balance between the positive and negative results from social media use is hard to maintain and the data from RQ1 and H1a seem to push toward the negative. In fact, 20 participants who responded to RQ1 and 31 participants who responded to RQ2 said that they believed they were happier in their relationships and emotions when they decreased their social media use indicating that it was their social media use that was causing some degree of strain on their relationships. One participant stated,

I used to spend a lot more time on social media, but I found that it made me unhappy. I became jealous of others and their success. I began to compare myself to them, and thought less of myself. One day a few months ago, I got sick of it, and I deleted everything besides Facebook.... Since then, I have been way happier, and I have grown to see myself in a much better way. I am also happier for those around me.

The data from RQ2 indicate that social media has a widely negative impact on the emotions of those who use it with a small positive influence. The four original emotions discussed earlier (FOMO, depression, loneliness, anxiety) will be examined first. Of these four, depression scored the highest with 115 respondents saying that their social media influenced them to feel depressed/sad for a variety of reasons. Combining this finding with the 43

participants who mentioned envy/jealousy was a common emotion for them offers support to Tandoc et al. (2015) who said that heavy social media users experienced higher levels of envy and reported feeling more symptoms of depression.

FOMO placed second among these original four, however it placed 9th overall among the categories of negative emotions. One of the main drawbacks to FOMO is that it motivates the individual to engage in social surveillance where they are constantly worrying about what everyone else is doing and whether or not they are being included. This behavior encourages the individual to stay on social media for longer periods of time so that they don't miss out on any opportunities and they return to social media more frequently in order to satisfy their higher need for self-approval (Lai et al., 2016). One participant supported this finding by saying, "I have found that using social media makes me hyper-aware of others, and more easily able to fall into tribalistic thinking. It becomes a lot easier to get fired up about something and say 'oh that person is such an idiot,' compared to if I was talking to someone in person."

Loneliness came third with people saying their social media use made them feel disconnected from their peers even though they were connected online. One participant stated, "Often times, social media can make me feel more isolated from the people I follow, and the people around me. I can also leave social media sites feeling more self-conscious and depressed." There is so much depression, anxiety, and loneliness that seem to be growing, but these are often related to trivial things such as having a Netflix series end. There is little doubt that these emotions are becoming more frequent, but are they perhaps related to more shallow problems instead of real issues?

Anxiety came last out of the four original emotions. Several people responded that they felt anxiety in connection with other emotions and that they felt it most strongly when they were

separated from either their cell phones or social media (Cheever et al., 2014). One participant said, “sometimes, I’ll see a cute couple or something and I’ll get anxious because I’m so lonely.” Another participant stated, “it makes me anxious when there’s a lot of bad news.” A third participant remarked, “sometimes I feel anxious because I wonder why I haven’t been able to secure a marriage relationship at this point in my life.” These people have realized that some of their experiences online are impacting their personal lives to the point where they are no longer satisfied with how their life is going.

A significant number of participants responded that their social media use led to greater life dissatisfaction. This is closely related to social comparison because the act of comparing your own life to that of someone else causes you to reflect on the quality of your life and the majority of people will view their own life as lesser, especially because they are comparing their worst parts to the best parts of others’ lives. Social comparison was one of the repeating offenders for RQ1 and RQ2. Several participants of this study responded that they engaged in social comparison by comparing their lives to those of their peers. A common theme found among these participants was that they experienced feelings that their lives were dull, plain, boring, and bland. They felt that their lives were not satisfying or fulfilling enough leading them to grow ungrateful for what they did have. One participant wrote, “I find that the more time I spend on social media the less grateful and satisfied with my life I become. I compare my life more to the lives I see online and that makes me feel like my life is not very exciting.” Another respondent stated, “the more time I spend on social media, the less satisfied I am with myself.”

In the present study there are elements of social comparison and validation from others that puts their happiness in the hands of their peers. If their peers do not validate their behaviors or feelings it will cause a negative effect that can be detrimental to the mental health of the

individual. With this in mind, it is very possible that people would avoid sharing personal information such as trials, personal struggles, and the mundane parts of their lives and only share that which is positive, happy, and exciting thus creating the false notion that all is well and good in their lives. When other users see this false notion (not that the happy events are false, but that the image portrayed symbolizes that there are no negative events) they will often compare their life to the life they see online and feel that their life is dull, boring and depressing. One participant confirmed these findings this way, “I saw a comment once that when you logged onto Facebook you were getting the highlight reel of others' lives, and so then -- especially if you were already depressed -- you'd go away and compare the worst of your life to the best of others.”

Other noteworthy negative results with a quote from a participant for each were anger (“I’m angry when I compare myself to other people because I feel like I will never measure up”), time wasting (“sometimes I compare myself to other people, or I will unconsciously check FB and be upset with myself for being so automatic about it and wasting time”), apathy (“positively, it provides escapism, something that is good for people in moderation. Negatively, it provides too much escapism”), and distorted perception of reality (“scrolling through Instagram tends to encourage my belief that I need to have all of the greatest, newest, best version of everything.... I am aware though that you never know the truth behind a post... but it doesn't change the way that it makes me feel from time to time”). Relating these findings to H2a, the more time an individual spends on social media the more likely chance that their emotions, and by extension their emotional well-being will be negatively impacted.

Each of these negative emotions do not jeopardize the overall emotional well-being of an individual, however the slow culmination of repeated effects can eventually break down the

emotional barriers of the social media user causing short-term immediate damage and lasting damage over time. Once these emotional barriers are suppressed it leaves the door wide open for additional negative emotions to enter where they were not invited. Repeated exposure can drive those emotions deeper and deeper until they are very difficult to remove or overcome. However, like any injury, it may hurt to remove the source of the pain, but it will eventually heal and hopefully serve as a strength that will never be bothered again.

Why did some of the participants respond the way they did? There are potentially several reasons explaining why participants responded in this particular way: the participants actually feel the emotions they are describing, the participants think that they should feel a certain way based on the content so they then feel that way, or because the participants are choosing to allow the media to influence them. One participant put it this way, “to allow social media to influence you is silly. I am a person who knows I am in control of my emotions, if I see something that affects my emotions on social media I ask myself why am I feeling this and figure out the deeper reason to those emotions and work it out.” This participant understands that they are in control of choosing how social media affect them and they actively choose to control their emotions. One possible explanation for this is the age of the user. As we get older our perception of others around us changes and we have the tendency to care less about what others think about us. We grow more confident in who we are. However, many other users do not have this self-awareness and they are simply passive users who continually choose to allow social media to bring them down.

As with RQ1, RQ2 shows that social media are a two-sided coin with one side being negative and the other positive. At least 152 participants responded that their social media use made them feel happy or positive in some manner. This included seeing happy posts from

friends, watching uplifting or inspiring videos, receiving positive validation through the form of likes and supportive comments, and being entertained. These results contradict research from Hayes, Carr, and Wohn (2016) who explored the meaning that “liking” a post on Facebook (or a “favorite” on Twitter, etc...) had for both the original poster and the one who “liked” the post. The results from that study indicated that people devalued Facebook “likes” owing to the fact that they were more reactionary than conscious. As was shown in the findings in the present study, this was not the case.

Mudita was the category that surfaced as the most surprising category because it is completely selfless and deals with an individual being happy for someone else’s success with no return reward. Overwhelmingly, the qualitative findings of the present study have indicated that people use social media for themselves. They access social media and interact with people and content in a very hedonistic fashion seeking for the best benefit, while minimizing the most pain, from their use. Mudita, however, reveals that some social media users are genuinely happy for others and that they are not so focused on themselves that they cannot think of others. One participant summarized their feelings on this idea, “when I read or see the positives in some people’s lives it gives me absolute joy.”

The theory used for the present study was uses and gratifications. RQ3 is a direct response to this theory by providing answers as to why people use social media. As has already been shown in previous answers, the top reason people use social media is to connect with friends and family members (Oeldorf-Hirsch & Sundar, 2016; Wang, Tchernev, & Solloway, 2012). Since this reason repeats itself so frequently, it suggests that people generally intend to use social media for the purpose of connecting with the people they know as opposed to using it for alternative purposes. Though this may be true, it brings to light another element of U&G that

is not commonly discussed: its dark side. A pattern that surfaced from the data was that people waste time on social media. For those who responded to RQ3, they waste time intentionally, thus satisfying their use. However, for those who answered RQ2, many responded that they did not like wasting time online because it made them feel unproductive or lazy. U&G would explain why we choose the media we do, but its dark side would explain that the side effects of our use often create deeper holes within us that our intended use did not gratify. From this we can enter a cyclical pattern of using media to satisfy our needs, having some of our needs gratified and others enlarged, causing us to return to social media to satisfy the new needs, thus becoming caught in a never-ending process potentially leading to addiction. One participant highlighted these conclusions with this statement,

[Social media] is the only way I have to stay in contact with some people, but I have noticed that the more I use social media the more I feel depressed and compare myself to others. I try to cut out or reduce social media but it is an addiction.

This participant said that the reason they use social media is to connect with family and friends. However, while they are doing that they are being exposed to additional content they probably were not intending to see which causes them to make comparisons and feel depressed. They then said that they have tried to quit, but it has become an addiction, suggesting that they will likely return to social media to attempt to gratify their new needs of feeling depressed and invalidated.

Adam Alter (2017), in his recent book *Irresistible*, defined behavioral addiction as something you keep doing even though you hate yourself for doing it. He further explains that addictions rise slowly over time and are often unnoticeable until they are well set. The findings in the present study indicate that there are potentially strong elements of addiction resulting from excessive social media use. Two previous studies have highlighted that addictive behaviors exist

as a result of social media use, but they have not explored them in detail (Seo et al., 2016; Abbasi et al., 2017). The present study does not insinuate that all social media users are addicts.

However, the findings presented here strongly suggest that there is a growing problem from excessive social media use.

To summarize the findings, excessive social media use leads to decreased emotional well-being by triggering an increased response to negative emotions such as FOMO, depression, loneliness, anxiety, social comparison, decreased life satisfaction, anger, wasting time, frustration, increased isolation and a slew of others. Overindulging in social media also leads to decreased relationship quality with others, including close relationships, by increasing the potential for distrust, relationship dissatisfaction, emotional detachment, isolation, fewer offline interactions, a skewed perception of reality, and in rare cases the ending of a relationship. These negative emotions seem to indicate that addictive behaviors are on the rise and are closely related to overuse of social media.

On the other side of the coin, social media use also produces positive effects on emotional well-being such as happiness, *Mudita*, humor, support, validation, and a more frequent connection with loving friends and family members. Our use of social media can also produce positive effects on relationships by allowing to people to keep in touch with each other more frequently, sharing uplifting and inspirational content with others, receiving validation for personal achievement, and even forming new relationships.

Conclusion

This study has dealt with how the use of social media impacts the emotional well-being of the user and their offline interpersonal relationships. As social beings, it is natural for us to want to connect with those around us and social media has certainly made it easier to do so. However, as has been shown in this study, social media is not without its pitfalls. Backed by quantitative data, the qualitative findings in this study provide compelling evidence that social media use offers more negative consequences than benefits. The data imply that unless some appropriate actions are taken to be more aware of how our social media use impacts us and what we can do to resolve those issues then we will likely develop negative habits and further plunge ourselves into a state of deeper emotional distress by passively allowing our health and relationships to deteriorate.

This study confirms prior research on uses and gratifications theory, social media effects, and relationship problems, but also offers additional data that perhaps takes past research beyond previous limits to showcase that social media play a role in creating addictive behaviors. It is highly possible that social media are creating a society of addicts. The question that each social media needs to ask themselves is how do we know if our social media use is too much, or if it has become an addiction for us? This may require taking a break from social media for a short while and taking inventory of our lives in order to better see what needs social media has been gratifying and then to make the choice of either continuing to use social media to fill those needs to or to find alternative sources of gratification that are more lasting.

Future research should examine how addictive behaviors are created or strengthened through excessive social media use. Future research should also examine what the ideal amount of time spent on social media should be. Is there an appropriate balance between too much social

media use and none at all? If there is, what is it and does moderating how much time we spend on social media influence whether or not it will turn into an addiction? Another idea for future research is to examine gender differences for social media usage. This study did not explore the differences between male and female social media use and it might be interesting to see if the emotions expressed in the qualitative data are more a result of the 60% female responses or if they accurately reflect the larger population. This can be done by studying only male or only female participants instead of grouping them together as this study has done.

One of the possible limitations to collecting richer data than was acquired in this study was that the short answer questions in the survey were too vague. Having such non-specific questions resulted in somewhat vague answers. However, the data that were collected still served to be beneficial in many ways. Another limitation was that all of the participants were recruited only through social media which is also where they completed the survey. This method could have caused the results to become negligible due to trolling and personal bias, however, the author feels compelled to justify that the data collected here are legitimate and not merely a byproduct of being trolled by the research participants. As evidenced by two groundbreaking books on trolling behavior by Coleman (2015) and Phillips (2016), trolls are often inclined to share their authentic thoughts on the topic with researchers because—in addition to participating in the behavior—they find the topic fascinating to discuss with dispassionate observers.

One final thought for this research study is that social media are still relatively new to the world and as this phenomenon continues to develop, only continued research and time will be able to identify what is truly happening to mankind in the years to come.

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Appendix A—Social Media Survey

Time Spent on Social Media (Social networking time use scale ‘SONTUS’)

Olufadi, Y. (2016).

Please indicate how many times, on average, you use social networking sites such as Facebook, Instagram, Twitter, LinkedIn, Reddit, YouTube, Pinterest, Snapchat, etc., during a typical day:

1. I use social media _____ each day.
 Never Once 2-3 times 3+ times

Please indicate how much time you spend using social networking sites such as Facebook, Instagram, Twitter, LinkedIn, Reddit, YouTube, Pinterest, Snapchat, etc., during each session:

1. Each time I use social media I typically use it for:
 0-10 min. 10-30 min. 30+ min.

1. Why do you use social media?

Self Esteem Scale

The following questions pertain to the emotional perception you have of yourself. Please indicate the degree to which each statement applies to you by marking one of the following: strongly disagree (1), somewhat disagree (2), undecided (3), somewhat agree (4), strongly agree (5). (Rosenberg, 1989)

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*
4. I am able to do things as well as most other people
5. *I feel I do not have much to be proud of*
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*
9. *I certainly feel useless at times*
10. *At times I think I am no good at all*

2. Does your use of social media influence your emotions? If so, how?

Interpersonal Relationship Scale

Please answer the following questions about your relationship with the person you are closest to (e.g. family member, spouse, best friend, intimate partner, coworker, etc...). It does NOT need to be a romantic relationship, although it is all right if it is.

Please indicate the degree to which each statement applies to you by marking one of the following: strongly disagree (1), somewhat disagree (2), undecided (3), somewhat agree (4), strongly agree (5). (Hendrick, 1988; Garthoeffner, Henry, & Robinson, 1993).

1. My close friend/partner meets my needs
2. I am very satisfied with the relationship I have with my close friend/partner
3. Compared to most, my relationship is excellent
4. *I often wish I hadn't gotten into this relationship*
5. My relationship has fully met my original expectations
6. *My relationship is full of problems*
7. There are times when my close friend/partner cannot be trusted
8. My close friend/partner would tell a lie if he/she could gain by it
9. In our relationship, I have to be alert or my close friend/partner is likely to take advantage of me
10. My close friend/partner is honest mainly because of a fear of being caught
11. I'm better off if I don't trust my close friend/partner too much
12. Even though my close friend/partner provides me with many reports and stories, it is hard to get an objective account of things
13. There is no simple way to decide if my close friend/partner is telling the truth
14. In our relationship, I am occasionally distrustful and expect to be exploited
15. *My close friend/partner can be counted on to do what he/she says they will do*
16. *My close friend/partner can be relied on to keep his/her promises*
17. *My close friend/partner treats me fairly and justly*
18. The advice my close friend/partner gives cannot be regarded as being trustworthy
19. I am afraid my close friend/partner will hurt my feelings
20. My close friend/partner pretends to care about me more than he/she really does
21. *My close friend/partner is likely to say what he/she really believes rather than what he/she thinks I want to hear*
22. I wonder how much my close friend/partner really cares about me
23. *I believe most things my close friend/partner says*
24. *I can express deep, strong feelings to my close friend/partner*
25. *I feel comfortable expressing almost anything to my close friend/partner*
26. *In our relationship, I feel I am able to expose my weaknesses*
27. I do not show deep emotions to my close friend/partner
28. *I share and discuss my problems with my close friend/partner*
29. *I tell my close friend/partner some things of which I am very ashamed*
30. It is hard for me to tell my close friend/partner about myself
31. *I talk with my close friend/partner about why certain people dislike me*
32. *We are very close to each other*
33. In our relationship, I'm cautious and play it safe
34. I'm afraid of making mistakes with my close friend/partner
35. It's hard for me to act natural when I'm with my close friend/partner
36. *My close friend/partner really cares about what happens to me*
37. *It is safe to believe that my close friend/partner is interested in my welfare*
38. *My close friend/partner is truly sincere in his/her promises*
39. *My close friend/partner is sincere and practices what he/she preaches*

40. My way of doing things is apt to be misunderstood by my close friend/partner
41. I feel my close friend/partner misinterprets what I say
42. I sometimes stay away from my close friend/partner because I fear doing or saying something I might regret afterwards
43. My close friend/partner doesn't really understand me
44. I sometimes wonder what hidden reason my close friend/partner has for doing nice things for me
45. *I seek my close friend/partner's attention when I'm facing troubles*
46. *I would like my close friend/partner to be with me when I'm lonely*
47. *I feel comfortable when I'm alone with my close friend/partner*
48. *I would like my close friend/partner to be with me when I receive bad news*
49. *I feel relaxed when we are together*
50. *I face life with my close friend/partner with confidence*
51. *I listen carefully to my close friend/partner and help him/her solve problems*
52. *I understand my close friend/partner and sympathize with his/her feelings*

3. Does your use of social media influence your relationships? If so, how?
4. Explain what you think it would be like to go one week without using your cell phone or accessing any social networking sites.

Demographics

1. As of your most recent birthday, what is your age?
2. What is your gender?
 - a. Male
 - b. Female
 - c. Other
 - d. Prefer not to answer
3. What is your ethnicity?
 - a. White/Caucasian
 - b. Hispanic
 - c. Latino
 - d. African
 - e. African American
 - f. Asian
 - g. Native American
 - h. Native Hawaiian or Pacific Islander
 - i. European
 - j. Other (please specify)
4. What is your current relationship status?
 - a. Single, never married
 - b. In a relationship
 - c. Married
 - d. Divorced
 - e. Widowed
 - f. Separated
 - g. Other (please specify)

5. How long have you been in the relationship you selected in question 4?
 - a. Not currently in a relationship
 - b. Less than one year
 - c. Between 1 and 3 years
 - d. Between 3 and 7 years
 - e. Between 7 and 10 years
 - f. More than 10 years

Appendix B—Tables

Table 1

Time

	Frequency	Percent
0-10 min.	278	44.3
11-30 min.	255	40.7
30+ min.	94	15.0
Total	627	100.0

N = 627

Table 2

Frequency

	Frequency	Percent
Once	55	8.8
2-3 times	131	20.9
3+ times	441	70.3
Total	627	100.0

N = 627

Table 3

Age

Age	Frequency	Percent
18	31	4.9
19	34	5.4
20	26	4.1
21	50	8.0
22	41	6.5
23	41	6.5
24	33	5.3
25	32	5.1
26	24	3.8

27	54	8.6
28	54	8.6
29	25	4.0
30	19	3.0
31	11	1.8
32	13	2.1
33	10	1.6
34	12	1.9
35	8	1.3
36	7	1.1
37	7	1.1
38	8	1.3
39	6	1.0
40	6	1.0
41	4	.6
42	8	1.3
43	3	.5
44	2	.3
45	1	.2
46	3	.5
47	3	.5
48	5	.8
49	2	.3
51	6	1.0
52	7	1.1
53	2	.3
54	3	.5
55	2	.3
56	3	.5
57	4	.6
58	2	.3
59	3	.5
60	2	.3
61	2	.3

62	1	.2
Total	620	98.9
Missing	7	1.1

N = 620

Table 4

Gender

	Frequency	Percent
Male	246	39.2
Female	373	59.5
Other	8	1.3
Total	627	100.0

N = 627

Table 5

Ethnicity

	Frequency	Percent
White/Caucasian	534	86.6
Hispanic	14	2.2
Latino	4	.6
African	7	1.1
African American	7	1.1
Asian	14	2.2
Native American	2	.3
Native Hawaiian or Pacific Islander	4	.6
European	15	2.7
Other	17	2.7
Total	627	100.0

N = 627

Table 6

Relationship Status

	Frequency	Percent
Single, never married	198	31.6
In a relationship	153	24.4
Married	259	41.3
Divorced	13	2.1
Separated	4	.6
Total	627	100.0

N = 627

Table 7

Relationship Length

	Frequency	Percent
Not currently in a relationship	145	23.1
Less than one year	72	11.5
Between 1 and 3 years	117	18.7
Between 3 and 7 years	119	19.0
Between 7 and 10 years	52	8.3
More than 10 years	122	19.5
Total	627	100.0

N = 627

Table 8

Relationship between dependent variables (relationship quality, emotional well-being) and independent variables (time, frequency)

			Time	Quality	Frequency	Emotions
Spearman's rho	Time	Correlation	1.000	-.093*	.059	-.115**
		Coefficient				
		Sig. (2-tailed)	-	.020	.140	.004
		N	627	627	627	627
Relationship Quality	Relationship Quality	Correlation	-.093*	1.000	-.040	.435**
		Coefficient				
		Sig. (2-tailed)	.020	-	.320	.000
		N	627	627	627	627
Frequency	Frequency	Correlation	.059	-.040	1.000	-.011
		Coefficient				
		Sig. (2-tailed)	.140	.320	-	.781
		N	627	627	627	627
Emotional well-being	Emotional well-being	Correlation	-.115**	.435**	-.011	1.000
		Coefficient				
		Sig. (2-tailed)	.004	.000	.781	-
		N	627	627	627	627

N = 627; *p = .05; **p = .01

Table 9

Descriptive Statistics for Time spent on Social Media and Emotional Well-being

	N	Mean	Std. Deviation
0-10 min.	278	3.91	.73
11-30 min.	255	3.77	.84
30+ min.	94	3.57	.92
Total	627	3.80	.81

N = 627

Table 10

One-way ANOVA for Time spent on Social Media and Emotional Well-being

	df	F	Sig.
Between Groups	2	6.387	.002
Within Groups	624		
Total	626		

N = 627

Table 11

Post Hoc (Bonferroni)

H2a: Increased time spent on social media will lead to the user's decreased overall emotional well-being

Time	Time	Mean Difference	Std. Error	Sig.
0-10 min.	11-30 min.	.139	.070	.142
	30+ min.	.333*	.096	.002
11-30 min.	0-10 min.	-.139	.070	.142
	30+ min.	.195	.097	.135
30+ min.	0-10 min.	.333*	.096	.002
	11-30 min.	-.195	.097	.135

N = 627; *p < .05

Table 12

Emotional well-being mediates the relationship between time/frequency and relationship quality

H3a (Time = X, Relationship Quality = Y, Emotional well-being = M)

1. X predicts M – path A
 - a. $F(1,625) = 11.8039, p = .0006$
 - b. $b = -.1601, t(625) = -3.4357, p = .0006$
2. X and M together predicting Y
 - a. M predicts y – path B
 - i. $F(2,624) = 36.7820, p < .000$
 - ii. $b = 2.703, t(624) = 8.3454, p < .000$
 - b. X no longer predicting Y – path C'
 - i. $b = -.0264, t(624) = -.8192, p > .05$

H3b (Frequency = X, Relationship Quality = Y, Emotional well-being = M)

1. X predicts M – path A
 - a. $F(1,625) = .6696, p = .4135$
 - b. $b = -.0402, t(625) = -.8183, p = .4135$
2. X and M together predicting Y
 - a. M predicts y – path B
 - i. $F(2,624) = 37.1677, p < .000$
 - ii. $b = 2.733, t(624) = 8.5239, p < .000$
 - b. X no longer predicting Y – path C'
 - i. $b = -.0097, t(624) = -.2953, p > .05$

N = 627

Table 13

RQ1: Does your use of social media influence your relationships? If so, how?

Category	# of responses
Negative results	
Distracts from offline activities and/or people	80
Edgy/Irritated/Impatient/Jealous/Judging/Ignored/Want to escape	76
Less time spent together offline (quality time diminished)	52
Comparing relationships	42
Distrust/Avoid others	23
Relationship is not good enough/I want something better	22
I feel more isolated	21
Offline/Online relationships become superficial	20
Emotionally detached	15
Over-analyze/Misinterpret online activity	11
Unrealistic expectations (skewed perception of reality)	10
Ended relationship	8
Total (negative)	380
Positive results	
Keep in touch	153
Strengthens relationship	62
Humor/Sharing	57
Offline communication increases based on topics viewed online	23
Happier in my relationships with less time on social media	20
Form new relationships	16
Total (positive)	331
Neutral results	
Does not influence my relationships	218
Total (cumulative)	929
N = 643	

Table 14

RQ2: Does your use of social media influence your emotions? If so, how?

Category	# of responses
Negative results	
Frustrated/Annoyed/Irritated/Distracted/Stressed	153
Depressed/Sad	115
Social Comparison (negative)	107
Life dissatisfaction	84
Anger	57
Wasted Time (procrastination/lazy)	57
Envy/Jealousy	43
Apathetic/Empty/Numb	39
FOMO	39
Distorted perception of reality (others' perfect lives)	38
Lonely	34
Anxiety	24
Increased isolation (less sociable offline)	18
Magnifies current emotions	18
Wanderlust	13
Total (negative)	841
Positive results	
Happy/Positive	152
Humor	43
Happier with less time on Social Media	31
Support/Empathy	23
Mudita	23
Motivating/Inspiring	19
Validated/Accomplished	14
Calming/Relaxing/Relief	13
Fun	8
Total (positive)	326
Neutral results	
Does not influence my emotions	127
Total (cumulative)	1,294

N = 668

Table 15

RQ3: Why do you use Social Media?

Category	# of responses
Connect with friends and family	461
News	188
Fun/Entertainment	176
Learn something new	91
Boredom	77
Kill/Waste time	59
Create/Share content	55
Work/Business	48
Escape	43
Participate in local events	25
Total	1,223

N = 680