

IMPACT OF SOCIAL MEDIA ON DEPRESSION

THE IMPACT OF SOCIAL MEDIA ON DEPRESSION IN 18-34-YEAR-OLDS IN
THE UNITED STATES

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ABSTRACT

The purpose of this study was to better understand the relationship between social media use and depression, by helping eliminate any inconsistencies from prior findings and expanding the research to include other possible contributing factors that have yet to be explored. Participants consisted of 18-34-year-olds residing in the United States. The study was conducted through an online survey on SurveyMonkey.

Participants (N = 198) reported that there are several potential causal factors of depression that result from the use of social media. These include envy (40.45%), unsettling news (15.73%), exclusion (12.36%), negative posts (12.36%), conflicting views (8.99%), cyberbullying (3.37%), too much time spent on social media (3.37%) and recalling past experiences (3.37%). These results confirmed that social media envy is a potential causal factor of depression. Furthermore, it was found that there are additional causal factors resulting from social media use.

Keywords: Cyberbullying; Depression; Internet Use; Mental Health; Social Media; Suicide

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CHAPTER 1 – INTRODUCTION

This study focuses on furthering research within the field of psychology by analyzing the relationship between depression and the use of social media. Since the presence of depression has become a growing issue, conducting research on this relatively new interaction between social media use and depression, will assist in acquiring a better understanding of the specifics of this mental disorder. A greater understanding will result in mental health professionals being better prepared and more equipped to handle situations that involve individuals with depression.

Previously conducted studies that pertain to the relationship between social media use and depression are limited because the field is relatively new. The earliest studies related to social media use and depression began to appear around 2013. The previous studies primarily focused on social media envy, the length of time spent on social media, the use of Facebook and their effects on depression. However due to the complexity of depression, it is difficult to pinpoint a single causal factor because there are an abundant amount of social media related variables that could potentially have an effect on an individual's level of depression. As a result, the purpose of this study is to better understand the relationship between social media use and depression, by contributing additional data that may help identify any factors that can potentially contribute to depression resulting from the use of social media. These potential factors may include envy, conflicting views, unsettling news, cyberbullying, too much time spent on social media, exclusion, negative posts and recalling past experiences. In other words, the primary focus of this study is to determine if social media envy is truly a factor that can

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contribute to the change in an individual's level of depression, in addition to exploring the possibility that there could be other contributing factors.

CHAPTER 2 – LITERATURE REVIEW

This chapter provides an overview of previous research that pertains to depression, the use of social media and the existing relationship between them. Reviewing the knowledge that is currently being shared, helped determine what specific areas lacked data and required further exploration.

Defining Depression

Depression is a potentially life-threatening mood disorder that affects 1 in 6 persons in the United States, or approximately 17.6 million Americans each year (Darvishi, Rahmani, Akbari, & Rahbar, 2013, p. 1072). Approximately 90% of people who have taken their own lives are associated with possessing a mental disorder, which is commonly found to be merely depression or a combination of multiple conditions that includes depression (Masango et al., 2008, p. 27). Data further suggests that between 59% - 87% of suicide victims, from the general population, suffered from major depression (Gonda, 2007, p. 2). The average onset age of depression is from 25-45 years old (Kessler et al., 2007, p. 362); however, it does impact individuals of all ages. Depression affects every aspect of one's life by impairing them mentally, physically, and emotionally. More specifically, symptoms include depressed mood, decreased interest or pleasure in activities, significant change in appetite, weight loss or weight gain, insomnia or hypersomnia, feelings of restlessness or lethargy, fatigue or loss of energy, feelings of

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worthlessness or guilt, diminished ability to think, make decisions or concentrate, and recurrent thoughts of death or attempted suicide (American Psychiatric Association, 2013, p. 160). This makes it difficult for many that are afflicted with the ailment to complete everyday tasks and maintain relationships. Comorbidity, the presence of two chronic diseases or conditions, has also been found as a common occurrence in individuals who have depression. Comorbidities frequently occur between anxiety, substance abuse and depression (Kanter, Busch, Weeks, & Landes, 2008, p. 7). However, it is not limited to just the aforementioned; depression has also been reported to co-occur with physical conditions (Manderscheid et al., 2010, p. 2). Research shows that individuals who have depression are at a greater risk of developing coronary heart disease (Manderscheid et al., 2010, p. 1). Depression is an extremely dangerous disorder due to how common it is, its ability to affect several components of ones being and its potential to lead and individual to commit suicide.

If depression is left untreated or treated inadequately, this can lead to increased distress or even death. An estimated 400 per 100,000 depressed male patients and 180 per 100,000 depressed female patients commit suicide (Masango, Rataemane, & Motojesi, 2008, p. 27). Based on statistics gathered from 1997-2000, public mental health care patients with a major mental illness, which include schizophrenia, major depressive disorders, bipolar disorders, delusional and psychotic disorders, and attention deficit/hyperactivity disorders, die between 1-10 years earlier than patients with non-major mental illness and between 13-30 years earlier compared to the average life expectancy of Americans (Colton, & Manderscheid, 2006, p. 4). In 2013, intentional self-harm was ranked the tenth leading cause of death in the United States, resulting in 41,149

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deaths which accounted for 1.6% of the total deaths, while it ranked the highest for persons between the ages of 20-34 in second place, resulting in 9,478 deaths (Heron, 2016, p. 18-19). Between the sexes, intentional self-harm was ranked the third leading cause of death for males accounting for 6.3% of deaths, and the sixth leading cause of death for females accounting for 3.8% of deaths (Heron, 2016, p. 8-9). Furthermore, intentional self-harm was found to be the third leading cause of death in the Hispanic population (7.4% of deaths), the fourth leading cause of death in the non-Hispanic White population (4.9% of deaths) and the fifth leading cause of death in the non-Hispanic Black population (4.4% of deaths) (Heron, 2016, p. 13). Over the past few decades, the rate of suicide has noticeably been increasing. Based on the current rising rates of depression, it is projected that depression will become the second leading cause of death worldwide by the year 2020 (Chapman & Perry, 2008, p. 1).

Social Media Use

Social media can be identified as any online service where an individual is presented with the opportunity to interact with others through several various verbal and non-verbal means. This includes blogs, networking platforms, virtual worlds and sharing applications (Bolton, 2013, p. 248). Since humanity is currently living in the technological era, there has been a major shift towards creating an online presence. This has resulted in the rise of a new generation within marketing research, referred to as Generation C, where the C stands for content, creativity, casual collapse control and celebrity (Hardey, 2011, p. 3). This new generation has become reliant on their connections and the content they produce online to define their identities (Urista, Dong, & Day, 2008, p. 217). Statistics show that 83% of 18-29-year-olds distribute their

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information through social media outlets (Knight-McCord, 2016, p. 22). The increased popularity of social media can be seen as a result of its ability to provide instantaneous fulfillment of its users' needs and wants (Urista et al., 2008, p. 217). Individuals between the ages of 18-34 that use social media, are more likely to use it for interaction purposes than older age groups (Bolton, 2013, p. 248). Not only has it become the new method of communication, but also the way that young adults prefer to share and acquire information.

Social media usage can be categorized into several broad classifications; contributing, sharing, consuming, searching for content, participating, and playing (Bolton, 2013, p. 248). Contributing refers to an individual posting content that they have created, sharing is distributing the content posted by someone else, consuming is acquiring knowledge from posted content, searching for content is the act of seeking out specific information, participating is interacting with others, and playing refers to engaging in an activity such as a video game. With its versatile use and its ability to simplify tasks, social media has become embedded into the daily lives of many. In 2016, it was found that 79% of internet users in the United States used Facebook, 32% used Instagram, 31% used Pinterest, 29% used LinkedIn and 24% used Twitter, with 86% of American adults ages 18 and up classified as internet users (Greenwood, Perrin, & Duggan, 2016 p. 2-3). The usage rate has significantly been increasing over the past decade. This is especially apparent with Facebook, which can be witnessed by a 7% increase when comparing the usage rates between the years 2015 and 2016 (Greenwood et al., 2016, p. 3). Out of the population of internet users, 83% of females and 75% of males use Facebook. (Greenwood et al., 2016, p. 4). Additionally, 88% of 18-29-year-

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old internet users also use Facebook (Greenwood et al., 2016, p. 4). Other social media platforms are experiencing an increase in their number of users and rate of usage as well, although these are not as drastic as the more popular social media platform, Facebook (Greenwood et al., 2016, p. 2-3). A larger female population uses all the aforementioned social media platforms, except for LinkedIn, which comprises of 31% of male internet users and 27% of female internet users (Greenwood et al., 2016, p. 7). Furthermore, a larger percentage of 18-29-year-old internet users use all the aforementioned social media platforms in comparison to other age groups, with Facebook at 88%, Instagram at 59%, Twitter at 36%, LinkedIn at 34% and Pinterest at 36% (Greenwood et al., 2016, p. 4-8).

Cyberbullying

The use of electronics and the internet has given rise to a new form of bullying referred to as cyberbullying. Cyberbullying can be defined as an intentionally aggressive or harmful act executed by a bully through an electronic form of contact (Bayraktar et al., 2015, p. 3193). Contact can occur through the means of emails, text messages, online games, and social networking sites (Moreno, 2014, p. 1). The characteristics of cyberbullying are similar to those of traditional bullying, which refer to verbal, physical and social forms of bullying, because they both involve a victim and an aggressive or harmful bully. Cyberbullying and traditional bullying tend to overlap, meaning that if a victim is traditionally bullied, they are also cyberbullied and vice versa (Kessel Schneider, O'Donnell, Stueve, & Coulter, 2012, p. 171). According to a study conducted by Kessel Schneider et al., 59.7% of cyberbullying victims were also traditionally bullied and 36.3% of traditional bully victims were also cyberbullied (2012, p. 173). Although there are several differences with cyberbullying that include; cyberbullies having more

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anonymity resulting in victims typically being unaware of their identity, victims can be reached by a cyberbully anytime an electronic device is accessed, it is more difficult to hide from a cyberbully, and the cyberbullies messages can spread to a wider audience (Moreno, 2014, p. 1; Bayraktar et al., 2015, p. 3193-3194). Victims who are targeted by cyberbullies are typically those who have been rejected by their peers and are seen as having low self-esteem and low self-control (Bayraktar et al., 2015, p. 3207). Bullies are described as those who are domineering towards others and have poor relationships and low self-control (Bayraktar et al., 2015, p. 3194). Additionally, cyberbullies have a degree of technological expertise (Bayraktar et al., 2015, p. 3193).

Cyberbullying has been found to lead to depression and suicidal ideations. Based on gathered data from 22 high schools within the Boston metropolitan area, 33.9% of high school students reported depressive symptoms associated with cyberbullying, while 26.6% reported depressive symptoms associated with traditional bullying (Kessel Schneider et al., 2012, p. 174). Although, the highest reported cause for depressive symptoms was the cooccurrence of both traditional bullying and cyberbullying with 47% (Kessel Schneider et al., 2012, p. 174). Reports of cyberbullying were also found to be higher among girls (18.3%) than among boys (13.2%) (Kessel Schneider et al., 2012, p. 173). Furthermore, the rate of attempted suicide for high school students who were victims of cyberbullying was 9.4% and 4.2% for victims of traditional bullying (Kessel Schneider et al., 2012, p. 174). Similar to the aforementioned depression rates, victims of both cyberbullying and traditional bullying were the highest for attempted suicide, with 15.2% (Kessel Schneider et al., 2012, p. 174).

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Related Studies

Since there has been an increase in the rate of social media use and the rate of depression, researchers within the field have begun to perform studies that look at how these two topics affect one another. However, considering that social media is a relatively new concept, there is a limited amount of research that has been conducted pertaining to the effect that it has on depression. One of the earliest studies was conducted in 2013 by Jelenchick, Eickhoff and Moreno (2013) from the University of Wisconsin-Madison, which included a sample size of 190 college students, with 58% female and 91% Caucasian participants (p. 128). The purpose of this study was to evaluate the association between social networking site use and depression, where participants were asked to complete a Patient Health Questionnaire-9 that was distributed in the form of an online survey (Jelenchick et al., 2013, p. 129). The Patient Health Questionnaire-9 (PHQ-9) is a diagnostic tool that is used to screen for depression, by scoring each of the nine depression criteria from the DSM-5, from '0' (not at all) to '3' (nearly every day) (Blackwell, & McDermott, 2014, p. 246). In addition to this, an experience sampling method was used to collect a weeklong amount of data about social media use habits, through periodic text messages that included surveys (Jelenchick et al., 2013, p. 129). An experience sampling method is a real-time assessment, which can be a journal or survey. The results from the PHQ-9, that measured the level of depression, were divided into three categories consisting of none, mild, and moderate to severe. The information gathered from participants resulted in 49% for none, 35% for mild and 14% for moderate to severe (Jelenchick et al., 2013, p. 129). Based on the data acquired from the experience sampling method, the average reported time spent on social media was 28 minutes

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(Jelenchick et al., 2013, p. 129). The results from this study, found no evidence of a relationship between social media use and clinical depression (Jelenchick et al., 2013, p. 129).

Two additional studies were led in 2014, both by Steers, Wickham and Acitelli (2014) from the University of Houston. To begin with, they found prior research indicating that there is a relationship between social comparison, where individuals would compare themselves to others, and mental health (Gilbert et al., 2002, p. 148). This research suggested that when an individual makes social comparisons that causes them to believe they are inferior, their psychological health is negatively impacted (Gilbert et al., 2002, p. 148). Steers et al. (2014) further expanded on this research by focusing their studies on social media comparisons. These studies specifically explored the outcome of using Facebook in a socially comparative manner, along with the length of time spent using Facebook, as it pertains to depression (Steers et al., 2014, p. 701). Study 1 had a sample size of 180 college students, which comprised of 39 males and 141 females (Steers et al., 2014, p. 707). Participants completed an online questionnaire that included an adaptation of the Iowa Netherlands Comparison Orientation Measure (INCOM) and the Center for Epidemiology Studies Depression Scale (CES-D) (Steers et al., 2014, p. 708-709). The INCOM is a tool that comprises of 11 questions that are used to gauge social comparison tendencies, however for this study these questions were modified to specifically pertain to comparison that occurs while using social media (Steers et al., 2014, p. 708). The CES-D is a diagnostic tool for depressive symptoms, that rates 20 self-reported items from '0' (rarely to none) to '3' (most or all the time) (Steers et al., 2014, p. 709). The results of this study indicate that there is a positive association between the

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time spent on Facebook and depressive symptoms (Steers et al., 2014, p. 710).

Furthermore, a positive relationship was found between comparison that lacks a positive or negative direction and time spent on Facebook (Steers et al., 2014, p. 710). However, once the data from all three variables was analyzed simultaneously, a significant relationship was only present for male participants with a p-value of $< .01$, while data from female participants revealed no significant relationship with a p-value of .986 (Steers et al., 2014, p. 710). Study 2 had a sample size of 152 college students, which comprised of 59 males and 93 females (Steers et al., 2014, p. 714). Participants assembled a 14-day diary, which required them to report the time they spent on Facebook, any social comparisons that occurred and how they felt while using it (Steers et al., 2014, p. 714). The data from this study resulted in a p-value of $< .01$ between time spent on Facebook and the act of comparing one's self to others, which confirmed the findings from study 1 that these two variables have a positive relationship. (Steers et al., 2014, p. 721). However, a p-value of .63 between time spent on Facebook and depressive symptoms, also rejected the findings from study 1 that suggested that there is a significant relationship between these two variables (Steers et al., 2014, p. 721). Furthermore, a p-value of $< .01$ revealed that an association exists between time spent on Facebook, social comparison and increased depressive symptoms (Steers et al., 2014, p. 722).

In 2015, another study that focused on Facebook use, envy and depression was conducted. This study included 736 college students that comprised of 68% females and 78% of participants who identified as White Americans (Tandoc, Ferrucci, & Duffy, 2015, p. 142). Additionally, the average age of participants was found to be 19 (Tandoc

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et al., 2015, p. 142). These individuals filled out a survey that inquired about the average number of hours per day that they spent on Facebook (Tandoc et al., 2015, p. 142). It also included a scale that was developed to measure Facebook envy by using the 5-point Likert scale to rate several questions and the Center of Epidemiologic Studies Depression Scale, which as previously mentioned is used to measure depression (Tandoc et al., 2015, p. 142). Results revealed that participants use Facebook for an average of 2 hours per day (Tandoc et al., 2015, p. 142). From this gathered data, no direct relationship was found between the amount of time spent on Facebook and depression (Tandoc et al., 2015, p. 143). However, a p-value of $< .01$ revealed that those who use Facebook more frequently experience higher levels of envy (Tandoc et al., 2015, p. 143). Furthermore, a p-value of $< .001$ showed that individuals who experience higher levels of envy, also have more symptoms of depression (Tandoc et al., 2015, p. 143). This led to the deduction that those who have a higher usage rate, are exposed to more content giving them greater opportunity to be envious, which results in depressive symptoms (Tandoc et al., 2015, p. 144). Overall, this study conveyed that Facebook use should not be seen as the cause of depression, but rather the envious nature of individuals should be viewed as the reason for these negative emotions (Tandoc et al., 2015, p. 144). It was concluded that even though the use of Facebook can lead to depression, if envy is not present, its use has the potential to decrease the level of depression by creating a gratifying experience (Tandoc et al., 2015, p. 144). This was supported by a t-value of $-.212$, which revealed that Facebook use has a negative effect on depression when Facebook envy is not present (Tandoc et al., 2015, p. 143).

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Following this, a study was performed in 2016, which focused on the amount of time and frequency individuals spent on social media outlets (Lin et al., 2016, p. 1). Participants were initially recruited by random digit dialing and address-based sampling (Lin et al., 2016, p. 1). They were then asked to complete an online survey, which resulted in a sample size of 1,787 adults between the ages of 19-32 that reside in the United States (Lin et al., 2016, p. 3). The survey asked participants about the frequency per day and amount of times per week they are on social media (Lin et al., 2016, p. 4). A global frequency score was acquired from the Pew Internet Research Questionnaire to analyze this data (Lin et al., 2016, p. 4). Furthermore, the Patient-Reported Outcomes Measurement Information System (PROMIS) Depression Scale, which asked participants if they have felt hopeless, worthless, helpless, or depressed in the past 7 days, was used to determine the participants level of depression (Lin et al., 2016, p. 5). The responses to the PROMIS Depression Scale were scored on a 5-point Likert scale ranging from '1' (never) to '5' (always) (Lin et al., 2016, p. 5). The results revealed that the greater the frequency, as well as the amount of time spent on social media, the more an individual is likely to be depressed (Lin et al., 2016, p. 6). Although, since this was a cross-sectional study which only determined if a relationship was present, the direction of the findings is unknown (Lin et al., 2016, p. 7). This could potentially indicate that more frequent use of social media leads to depression (Lin et al., 2016, p. 7). However, it could also potentially mean that individuals who are depressed and possess low self-worth, resort to using social media to gain validation (Lin et al., 2016, p. 7).

The most recent study conducted was done by Primack et al. (2017) from the University of Pittsburgh School of Medicine. This study was executed in conjunction

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with the previously mentioned study from Lin et al. (2016). Both studies used the same population and methodology. However, a noteworthy difference is that its focus was on determining what effect the use of multiple social media platforms has on depression and anxiety (Primack et al., 2017, p. 1). Prior research revealed that the use of multiple platforms has been increasing (Duggan, Ellison, Lampe, Lenhart, & Madden, 2014, p. 1-2). The number of individuals that use 2 or more social media platforms has seen a significant increase from 42% in 2013 to 52% in 2014 (Duggan et al., 2014, p. 2). This prompted the need to further consider what effect the use of multiple platforms has on depression. The results revealed a linear association between the number of platforms used and depression, which showed a strong positive correlation among these two variables (Primack et al., 2017, p. 4). Ultimately, this revealed that the more social media platforms that an individual utilizes, increases the likelihood of them having depression (Primack et al., 2017, p. 4). However, since this was also a cross-sectional study, it is unclear if using multiple social media platforms is a causal factor of depression or if depression leads individuals to use more social media platforms (Primack et al., 2017, p. 4-5).

CHAPTER 2 - METHODOLOGY

The focus of the study was an attempt to determine if there is a relationship between depression and social media;

Research Question: Are there factors resulting from social media use that can cause depression among 18-34-year-olds residing in the United States?

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Hypothesis: There are several factors resulting from social media use that cause depression among 18-34-year-olds

Null Hypothesis: There are no factors resulting from social media use that cause depression among 18-34-year-olds

Definition of Terms

For clarification purposes, the important terms used in this study have been defined. The following terms are:

Males are a group of participants between the ages of 18-34, residing in the United States and of an unidentified ethnicity.

Females are a group of participants between the ages 18-34, residing in the United States and of an unidentified ethnicity.

Depression is a mood disorder that can be characterized by several symptoms, one of which includes chronic low mood (Chapman & Perry, 2008)

Suicide is the act of intentionally killing one's self, through self-harm or other deadly means.

Social Media is any online service where people have the ability to create and share various types of content (Bolton, 2013, p. 248)

Social Media Envy is the act of negatively comparing one's self to the life of others through social media platforms. This results in feeling a sense of jealousy towards another.

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Cyberbullying is the act of bullying through technology. This can include several forms, such as body shaming or racism.

Conflicting Views is a category that refers to disagreements that arise on social media such as social issues.

Unsettling News is a category that encompasses posts about incidents such as animal abuse or a death.

Too Much Time on Social Media is a category where individuals felt that they have spent an excessive amount of time on social media.

Exclusion is a category where individuals witness posts from events that they were left out of.

Negative Posts is a category that refers to personal posts that have a negative connotation. This can include posts about relationship issues

Recalling Past Experiences is a category where individuals witness posts on social media that can cause them to recollect prior memories which can lead to negative emotions.

Population

The respondents consisted of males (n = 87, 43.9%) and females (n = 111, 56.1%) between the ages of 18-34, who reside in the United States and use social networking sites. This age group was chosen because data reveals that depression is the second leading cause of death of individuals ages 20-34 (Heron, 2016, p.18-19) and 83% of 18-29-year-olds use social networking platforms as their method of distributing information

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(Knight-McCord, 2016, p. 22). The sample size chosen was 200, however only 198 complete surveys were collected. Two participants were excluded because less than 50% of the questionnaire was completed.

Data Collection

The data collection method consisted of a survey, which was distributed in January 2017 through an online service called SurveyMonkey. The 'Buy Survey Responses' feature was used to collect 200 anonymous survey responses. Restrictions were made, only allowing individuals ages 18-34 who reside in the United States and utilize social media to participate in the research study. Following completion, participants were provided with a \$0.50 credit that could be donated to a charity of their choosing.

SurveyMonkey has more than 30 million users from the United States that complete surveys each month (SurveyMonkey Audience, n.d.). This number is further reduced with the specific targeted age group (18-34) and the requirement for the participants to be using social networking sites, which reduces the population that can be surveyed. According to the U.S. Census Bureau (2015), the United States consists of approximately 75 million 18-34-year-olds. With a focus on this age group, a sample size of 200 results in a 7% confidence interval.

Materials

The survey consisted of 11 questions directly pertaining to the research study and an additional 5 demographic questions that were added by SurveyMonkey. Prior to

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beginning the survey, participants were presented with the consent form (Appendix A), which required acceptance in order to continue. The first several questions were geared merely towards determining social media usage habits. These included questions about types of social media platforms used, frequency and duration of usage, and the participant's reasoning behind using them. The initial question stated, 'What social media websites/applications are you active on? (Please check all that apply)' It provided participants with the option to select Facebook, Twitter, Instagram, LinkedIn, Tumblr, MySpace, YouTube, Google+, Pinterest and Other. The Other option was in the form of a textbox that allowed participants to include any additional social media platforms that were not included. Both 'How many times per week do you use social media?' and 'What is the duration per day that you are on social media?' were multiple choice questions that consisted of ranged answers.

The purpose of the next question was to measure the participant's understanding of depression. It asked them to describe depression by selecting from a list of symptoms, presenting them with the ability to choose all that they believed applied. The following symptom choices were provided; feelings of hopelessness, sadness, inability to feel pleasure, mood swings, restless sleep, social isolation, fatigue, and loss of interest. If a minimum of three choices were selected and at least one of these included sadness, inability to feel pleasure or loss of interest, this was deemed as a satisfactory understanding of depression. According to the American Psychiatric Association (2013), if 5 or more of the symptoms listed in the manual have been present for at least two weeks and include either depressed mood or loss of interest/pleasure, a diagnosis of major depressive disorder can be made (p. 160). Since the possible answer choices for

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this survey question did not include all the listed symptoms from the DSM-5, at least three selections out of the eight possible options were considered sufficient. The next question asked, 'Have you ever been diagnosed with depression?' This question was asked to determine if there is any correlation between diagnosed depression and sadness resulting from social media usage.

The subsequent set of questions consisted of those that specifically pertained to a potential relationship between depression and the utilization of social media. Participants were asked if the use of social media evoked feelings of sadness, isolation, or low self-esteem, as well as suicidal thoughts, in the form of, 'Have you ever experienced feelings of sadness as a result of using social media?' This question was asked because prolonged sadness is an integral indicator that must be present in order for a diagnosis of depression to be made. Even though a diagnosis of depression requires more than merely feelings of sadness, the word sadness was specifically chosen over the term depression for a couple of reasons. The first reason is due to a potential stigma that currently exists behind discussing the subject. Although there has been a movement towards raising awareness about depression, there is still a lingering stigma that causes people to feel uncomfortable with openly talking about this mental disorder. A study conducted in 2016 compared news stories pertaining to mental illness between the years 1995-2004 and 2005-2014. It was found that there was an increase from 23% in 1995-2004 to 28% in 2005-2014 of news stories which mentioned stigma or discrimination related to mental illness (McGinty, Kennedy-Hendricks, Choksy, & Barry, 2016, p. 5). This is partially due to people associating mental illness with violence or unpredictability. As a result, it causes them to avoid individuals who are afflicted with a mental ailment, and further leads the

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mentally ill to evade disclosing any details related to this subject. The second reason why the term sadness was utilized instead of depression was to minimize any psychological risks that could potentially result from partaking in this research study. If the participant responded with the answer 'Yes', then they had the opportunity to explain what part of social media use caused their feelings of sadness. This portion of the question stated, 'Please explain what caused this' and was followed by a textbox, which allowed participants to provide a written response in their own words. Open-ended questions tend to encourage people to better contemplate their responses prior to answering a question, leading them to recall unpleasant memories or experiences. Due to this, using a term that is less evoking of an emotional response decreases the chance of any psychological risks from occurring. Since the specific term depression was not used for this question, the results from it will be cross referenced with those from the prior question pertaining to the diagnosis of depression. The full survey can be seen in Appendix B.

The statistical analysis software program SPSS was utilized to analyze the acquired data. This was a correlation study that consisted of nominal variables. Due to this, the crosstabs feature and the Chi-Squared tests were used. Significance was considered to have a p-value of less than .05.

CHAPTER 3 – DATA ANALYSIS

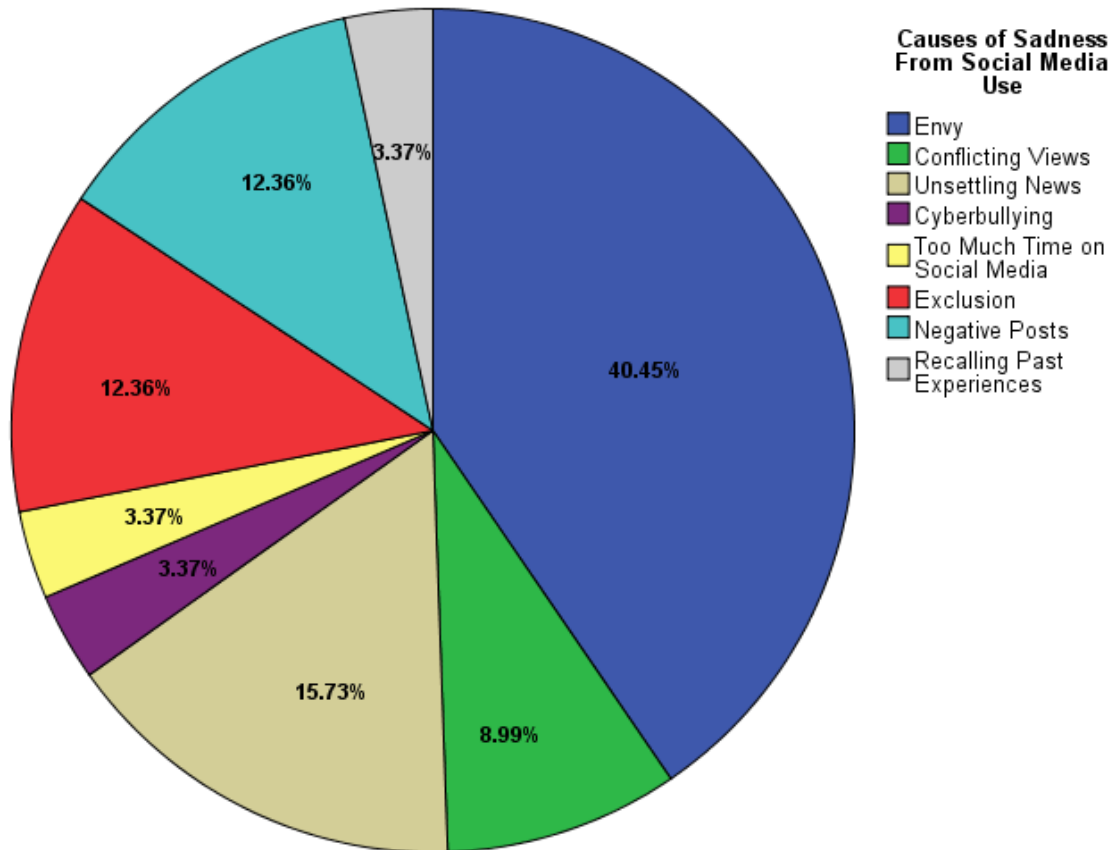
Findings

Causes of Sadness

A total of 89 (44.9%) participants reported experiencing sadness resulting from the use of social media, while 73 (36.9%) participants reported that there was no resulting sadness and 36 (18.2%) participants reported that they did not know if feelings of sadness were due to social media use. Additionally, 89 (44.9%) participants also responded to the follow-up question, which prompted them to explain what caused their feelings of sadness. Considering that this was an open-ended question, 8 categories were created that encapsulated the answers that were provided by the respondents. These consisted of envy, conflicting views (arguments arising from social issues), unsettling news (E.g. animal abuse or a death), cyberbullying, too much time spent on social media, exclusion, negative posts (personal comments that have a pessimistic connotation) and recalling past experiences (E.g. prior relationships or abuse). The highest amount of responses provided were associated with envy (40.45%) and the lowest provided responses were in three categories, which were related to cyberbullying (3.37%), too much time spent on social media (3.37%) and recalling past experiences (3.37%). The percentages for all the categories can be seen in Figure 1.

Figure 1.

Percentages of what caused feelings of sadness resulting from the use of social media



Cyberbullying

Figure 2 shows that a total of 111 (56.06%) participants reported encountering cyberbullying on social media, while 87 (43.94%) participants reported no encounters of cyberbullying. Out of those participants that reported an encounter, 34 (17.17%) responded that they have experienced cyberbullying on social media and 77 (38.89%)

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responded that they have witnessed the occurrence of cyberbullying on social media.

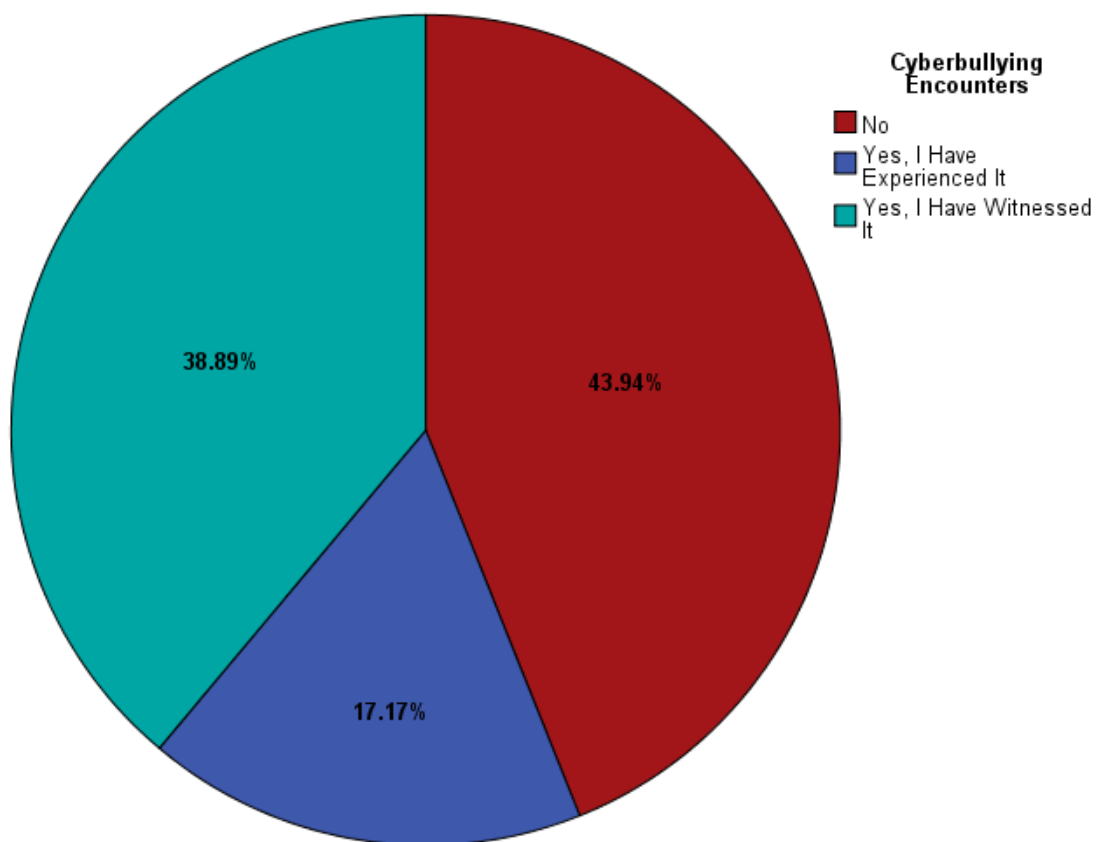
Furthermore, 20 (58.82%) participants who have experienced cyberbullying and 39

(50.65%) participants who have witnessed cyberbullying have also reported feelings of

sadness resulting from the use of social media (See Table 1).

Figure 2.

Percentages of cyberbullying encounters on social media



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Table 1.

Comparison of if cyberbullying has been encountered on social media and if feelings of sadness have ever been experienced resulting from the use of social media

		Have you ever experienced feelings of sadness as a result of using social media?			Total
		No	Yes	I Don't Know	
Have you ever encountered cyberbullying on social media?	No	41	30	16	87
	Yes, I Have Experienced It	9	20	5	34
	Yes, I Have Witnessed It	23	39	15	77
Total		73	89	36	198

Gender vs. Sadness

As shown in Table 2, 32 (36.78%) males and 57 (51.35%) females reported that they have experienced feelings of sadness resulting from social media use. A Chi-Square test resulted in $\chi^2(2) = 5.871, p = .053$ between genders and if feelings of sadness have ever been experienced resulting from the use of social media (see Table 3).

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Table 2.

Comparison of gender and if feelings of sadness have ever been experienced resulting from the use of social media

		What is your gender?		Total
		Male	Female	
Have you ever experienced feelings of sadness as a result of using social media?	No	40	33	73
	Yes	32	57	89
	I Don't Know	15	21	36
	Total	87	111	198

Table 3.

Chi-Square tests between gender and if feelings of sadness were experienced resulting from the use of social media

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.871 ^a	2	.053
Likelihood Ratio	5.879	2	.053

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Linear-by-Linear Association	3.024	1	.082
N of Valid Cases	198		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.82.

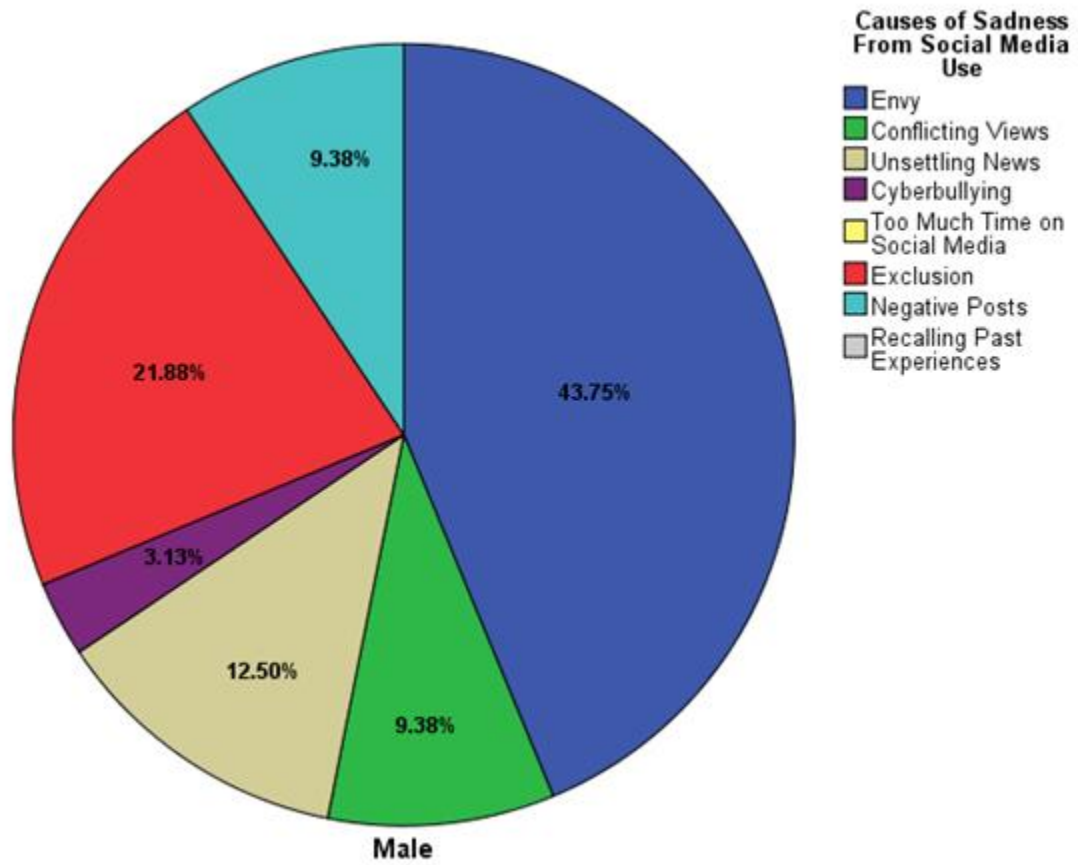
Gender vs. Cause of Sadness

Envy (43.75%) and exclusion (21.88%) were the highest reported categories for males, while envy (38.6%) and unsettling news (17.54%) were the highest reported categories amongst the female participants. Cyberbullying (3.13%) was the lowest category that was selected as a response by both genders. No male participants reported too much time spent on social media or recalling past experiences as a cause of sadness from using social media. Further data related to the categories that were chosen by gender can be seen in Figure 3 for males and Figure 4 for females.

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Figure 3.

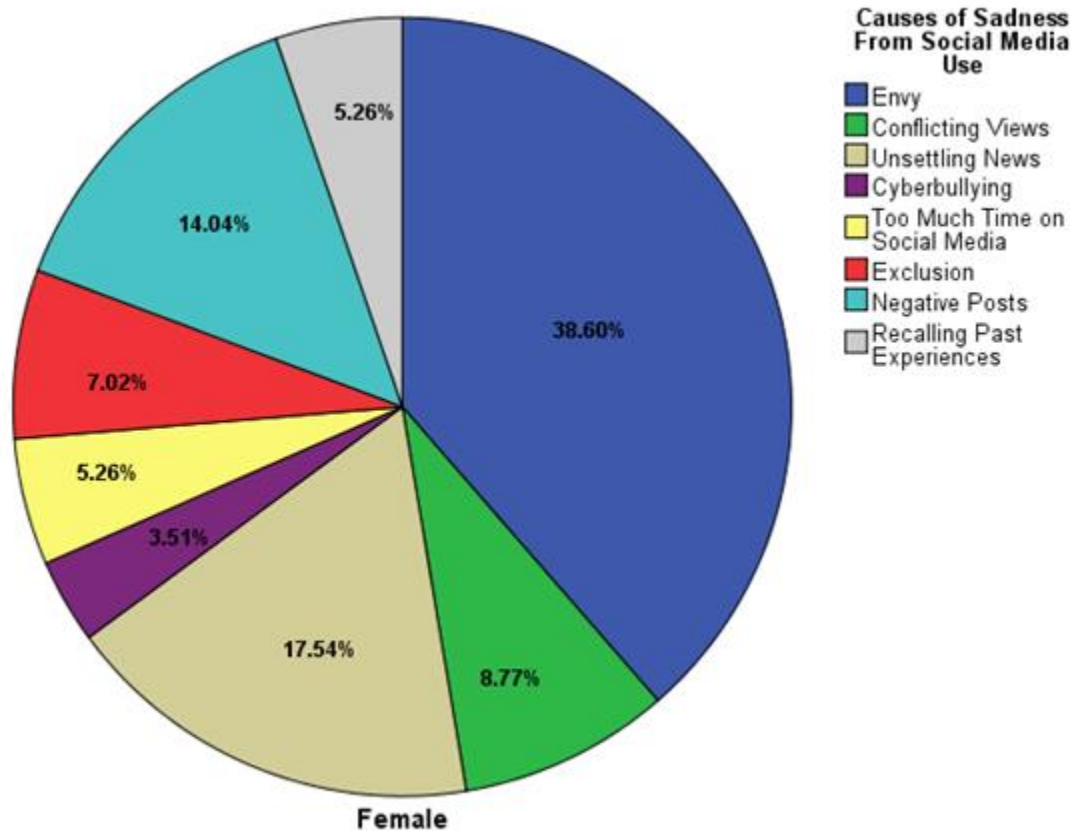
Percentages of what caused feelings of sadness from social media use in male participants



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Figure 4.

Percentages of what caused feelings of sadness from social media use in female participants



Frequency and Duration on Social Media vs. Sadness

A total of 118 (59.89%) participants reported that they use social media greater than 15 times per week with 61 (51.69%) of these participants using it for a duration of 1 – 5 hours a day. Out of those participants who utilize social media greater than 15 times a week, 59 (50%) of them reported that they have experienced feelings of sadness as a result of using social media. Additionally, 28 (45.9%) participants who reported using

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social media greater than 15 times per week and for a duration of 1 – 5 hours a day also reported experiencing feelings of sadness resulting from the use of social media.

Furthermore, no participants that reported using social media less than once a week for any duration of time, answered that they have experienced feelings of sadness resulting from social media use. The full set of data can be seen in Table 4.

Table 4.

Comparison of the amount of times per week spent on social media, duration per day spent on social media and if feelings of sadness have ever been experienced resulting from social media use

Have you ever experienced feelings of sadness as a result of using social media?		How many times per week do you use social media?					Total
		< Once	1-3 Times	4-9 Times	10-15 Times	> 15 Times	
No	What is the duration per day that you are on social media? < 30 Minutes	1	5	2	3	5	16
	30 Minutes - 1 Hour	0	3	4	6	6	19
	1 - 5 Hours	1	0	0	7	21	29
	5 - 10 Hours	0	0	0	0	7	7
	> 10 Hours	0	0	0	0	2	2

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	Total		2	8	6	16	41	73	
Yes	What is the duration per day that you are on social media?	< 30 Minutes		4	4	3	6	17	
		30 Minutes		2	6	5	15	28	
		- 1 Hour		0	3	3	28	34	
		1 - 5 Hours		0	0	0	8	8	
		5 - 10 Hours		0	0	0	2	2	
		> 10 Hours			6	13	11	59	89
		Total							
I Don't Know ^a	What is the duration per day that you are on social media?	< 30 Minutes	2	3	4	0	0	9	
		30 Minutes	0	1	2	1	3	7	
		- 1 Hour	0	0	0	4	12	16	
		1 - 5 Hours	0	0	0	0	3	3	
		5 - 10 Hours	0	0	0	0	3	3	
		> 10 Hours	0	0	0	0	3	3	
		Total		2	4	6	5	18	35
Total	What is the duration per day that you are on social media?	< 30 Minutes	3	12	10	6	11	42	
		30 Minutes	0	6	12	12	24	54	
		- 1 Hour							

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media?	1 - 5 Hours	1	0	3	14	61	79
	5 - 10 Hours	0	0	0	0	18	18
	> 10 Hours	0	0	0	0	4	4
Total		4	18	25	32	118	197 ^b

- a. Does not include Greater than 10 Hours because no participants selected this response
- b. One participant did not answer all three questions and was therefore excluded

Amount of Social Media Platforms vs. Diagnosed Depression

It was reported that most participants use between 2 – 4 (64.65%) different social media platforms. The amount ranged from as little as 1 platform to as great as 8 platforms. Out of those participants who reported that they use 2 social media platforms, 16 (38.1%) of them also reported that they have been diagnosed with depression. Furthermore, out of those participants who reported that they use 4 social media platforms, 24 (52.17%) of them also reported that they have never been diagnosed with depression. Overall, no significant relationship was found between total number of social media platforms used and diagnosed depression. The full data set can be seen in Table 5.

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Table 5.

Comparison between total number of social media platforms used and diagnosed depression

		Total Number of Social Media								Total
		Platforms Used								
		1	2	3	4	5	6	7	8	
Have you ever	No	7	11	13	24	11	4	3	1	74
been diagnosed	Yes	8	16	11	13	12	3	1	0	64
with depression?	Have Never Been Tested	8	15	16	9	6	4	2	0	60
Total		23	42	40	46	29	11	6	1	198

Purpose of Social Media Use vs. Sadness

As shown in Table 6, the highest number of participants (183, 92.42%) reported that they use social media for staying connected with friends and family, while the lowest (39, 19.7%) number reported that they use social media for business purposes. No significant relationship was found between the various reasons social media is used for and if sadness has ever been experienced resulting from the use of social media. There is a relatively even distribution between the various uses of social media and if feelings of sadness have been experienced or not.

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Table 6.

Comparison between the various uses of social media and if sadness has ever been experienced resulting from the use of social media

What do you use social media for?	Have you ever experienced feelings of sadness as a result of using social media?			Total
	No	Yes	I Don't Know	
Networking	42	49	19	110
Staying Connected with Friends and Family	66	85	32	183
For Business	11	20	8	39
For Entertainment	57	67	26	150

Feelings of Isolation, Low Self-Esteem and Sadness

As shown in Table 7, resulting from the use of social media, 104 (53.06%) participants reported that they have experienced feelings of isolation, 93 (47.45%) participants reported that they have experienced feelings of low self-esteem and 88 (44.9%) participants reported that they have experienced feelings of sadness. There were 51 (26.02%) participants who reported that they experienced feelings of isolation, low self-esteem and sadness resulting from the use of social media. Furthermore, it was

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reported that 47 (23.98%) participants reported that no feelings of isolation, low self-esteem or sadness were experienced resulting from the use of social media.

Table 7.

Comparison of if feelings of isolation, low self-esteem or sadness have ever been experienced resulting from the use of social media

			Have you ever experienced feelings of low self-esteem as a result of using social media?			Total
			No	Yes	I Don't Remember	
No	Have you ever experienced feelings of isolation as a result of using social media?		47	8	0	55
	No	Yes	7	7	0	14
	I Don't	Remember	1	1	1	3
	Total		55	16	1	72
Yes	Have you ever experienced		10	16	1	27
	No	Yes	5	51	1	57

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	feelings of isolation as a result of using social media?	I Don't Remember	1	3	0	4
	Total		16	70	2	88
I Don't Know	Have you ever experienced feelings of isolation as a result of using social media?	No Yes I Don't Remember	6 6 0	3 14 1	1 2 3	10 22 4
	Total		12	18	6	36
Total	Have you ever experienced feelings of isolation as a result of using social media?	No Yes I Don't Remember	63 18 2	27 72 5	2 3 4	92 93 11
	Total		83	104	9	196 ^a

a. Two participants did not answer all three questions and were therefore excluded

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Diagnosed Depression vs. Sadness

When asked if participants have ever been diagnosed with depression, 64 responded with yes, 74 responded with no and 60 responded that they have never been tested. Out of the 64 participants who answered with yes, 41 (64%) of them also reported that they have experienced sadness resulting from the use of social media. Overall, 89 participants stated that they have experienced feelings of sadness resulting from the use of social media, with 46.07% of these individuals also reporting that they have been diagnosed with depression. This can be seen in Table 8. A significant association ($\chi^2 (4) = 19.89, p = .001$) was found between experiencing sadness resulting from the use of social media and diagnosed depression. The Cramer’s V value of .224 indicates that there is a moderate effect size. This is shown in Table 9 and Table 10.

Table 8.

Comparison between if feelings of sadness were experienced resulting from the use of social media and diagnosed depression

		Have you ever been diagnosed with depression?			Total
		No	Yes	Have Never Been Tested	
Have you ever	No	36	16	21	73
experienced feelings of	Yes	27	41	21	89

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sadness as a result of using social media?	I Don't Know	11	7	18	36
Total		74	64	60	198

Table 9.

Chi-Square tests between if feelings of sadness were experienced resulting from the use of social media and diagnosed depression

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.893 ^a	4	.001
Likelihood Ratio	19.110	4	.001
Linear-by-Linear Association	5.451	1	.020
N of Valid Cases	198		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.91.

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Table 10.

Cramer's V showing the effect size between if feelings of sadness were experienced resulting from the use of social media and diagnosed depression

		Value	Approximate Significance
Nominal by Nominal	Phi	.317	.001
	Cramer's V	.224	.001
N of Valid Cases		198	

Suicidal Thoughts vs. Diagnosed Depression

It was reported that 10 (5.05%) participants experienced suicidal thoughts resulting from the use of social media, while 176 (88.89%) participants did not experience any suicidal thoughts. From those participants that reported having suicidal thoughts, 5 (50%) of them also reported being diagnosed with depression. Additionally, 51 (28.98%) participants who reported no suicidal thoughts resulting from the use of social media also reported being diagnosed with depression (see Table 11).

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Table 11.

Comparison of if suicidal thoughts have ever been experienced resulting from the use of social media and diagnosed depression

		Have you ever been diagnosed with depression?			Total
		No	Yes	Have Never Been Tested	
Have you ever had suicidal thoughts as a result of using social media?	No	71	51	54	176
	Yes	2	5	3	10
	I Don't Remember	1	8	3	12
Total		74	64	60	198

Analysis

This study found that among a national sample of individuals ages 18 – 34, there are multiple factors related to social media use that can potentially contribute to their level of depression. Among these factors was social media envy, which verifies that this is a potential contributor as aforementioned in the results of previous studies (Steers et al., 2014; Tandoc et al., 2015). Although the data reported by participants shows that social media envy is a predominant factor, there are additional contributing factors that arise from the use of social media that need to be considered. These include unsettling

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news, exclusion, negative posts, conflicting views, cyberbullying, too much time spent on social media and recalling past experiences. The second most reported cause was unsettling news, which consisted of responses pertaining to posts about animal or human abuse, and the loss of a friend or family member. Following this were exclusion and negative posts. Exclusion is similar to envy; however, it differs in the manner that it evoked a feeling of social isolation because participants felt that they were being left out from their social circle. Even though negative posts can be associated with the category unsettling news, a significant amount of participants provided responses that specifically involved unwanted exposure to personal posts of a negative nature, deeming that a separate category was necessary to differentiate between the two. This can include posts pertaining to work related issues or complications with relationships. The next reported cause was conflicting views, which involved disagreements about social issues such as politics. The final three categories of too much time spent on social media, cyberbullying and recalling past experiences were marginally reported. Even though this is the case, it would be beneficial to conduct further research and acquire additional statistical data in order to verify if these are contributing factors, as well as determine how much of an effect they can have on an individual's level of depression.

Participants were asked about the potential causal factor, cyberbullying, in a separate question. The gathered data showed that more than half of the participants have encountered some form of cyberbullying while using social media, whether it involve experiencing or witnessing it. When further analyzing this question, it was found that 53.15% of those who have encountered cyberbullying have also experienced sadness

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resulting from social media use. This indicates that cyberbullying may have an impact on an individual's emotional state, potentially effecting their level of depression.

No difference was found between the gender of the participants and if they have experienced feelings of sadness resulting from the use of social media. However, it was found that more males reported exclusion as the cause of sadness from social media use and only females reported that feelings of sadness were caused by too much time spent on social media and recalling past experiences. This could potentially be due to psychological differences that exist between genders and social pressures that are present within society. Social media envy was found to be the highest reported cause for sadness by both males and females. These findings support data collected from prior studies that have concluded, if social media is used in a comparative manner, there is a greater chance that symptoms of depression are present (Steers et al., 2014; Tandoc et al., 2015).

When analyzing the amount of usage, the gathered data showed that most participants use social media greater than 15 times a week with a duration of 1 – 5 hours per day. Further comparing the duration of social media use per day and the times of use per week to if feelings of sadness have ever been experienced, revealed that participants who reported using social media less than once a week for any duration of time per day, did not experience any feelings of sadness. The rest of the data is evenly distributed across the table, with no considerable difference between the three variables. This signifies that the duration and frequency spent on social media does not necessarily impact an individual's level of depression. Those who reported that they frequent social media less than once a week and have not experienced any feelings of sadness, might not be acquiring enough exposure to the shared content to experience such feelings.

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Considering that these results differ from those of a previously conducted study (Lin et al., 2016), further research should be conducted pertaining to the frequency and duration of social media usage to obtain more precise data. Another variable that was examined was the amount of social media platforms that participants used. It was found that most participants reported using between 2 – 4 different platforms. A comparison of the amount of social media platforms used and if sadness was ever experienced resulting from the use of social media, revealed that there is no significant relationship between these two variables. Further research should also be conducted pertaining to the amount of social media platforms used and how this effects an individual's level of depression because these results contradict those that have previously been found by another study (Primack et al., 2017). A comparison of the various purposes that participants use social media for and if feelings of sadness have ever been experienced resulting from social media use, presented no relationship. This means that the purpose that social media is used for has no impact on the emotional state of an individual. It did however reveal that the majority of participants use social media for the purpose of staying connected with friends and family, while only a minute portion of participants use it for business purposes.

An analysis was conducted between if participants experienced feelings of isolation, low self-esteem and sadness resulting from the use of social media, which revealed that 26.02% of the participants reported experiencing all three feelings, while 23.98% of the participants reported that they did not experience any of these feelings. This indicates that 76.02% of the participants experienced at least one of the three feelings resulting from the use of social media. These statistics signify that the use of

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social media does have an impact on the mental state of an individual, which could potentially lead to depression. Considering these results, further comparison was conducted between if feelings of sadness were ever experienced resulting from social media use and if the participant has been diagnosed with depression. It was found that 20.71% of participants have experienced feelings of sadness resulting from social media use and have also been diagnosed with depression. A chi-square test was performed, which revealed that these two variables have a significant association ($\chi^2 (4) = 19.89, p = .001$) with a moderate effect size ($V = .224$). This means that one of the variables has a moderate impact on the other. However, since this is a correlational analysis, the specifics of the relationship between these two variables cannot be determined. Another analysis that was conducted, occurred between if suicidal thoughts have ever been experienced resulting from the use of social media and if the participant has been diagnosed with depression. Only 5.05% of the participants reported that they have had suicidal thoughts resulting from social media use; although, 28.98% of participants who reported no suicidal thoughts resulting from the use of social media also reported being diagnosed with depression. There are a couple of different way to interpret these results. Either the use of social media does not directly cause suicidal thoughts or the participants were not comfortable with responding to such a straight forward question and therefore decided to avoid providing a truthful response.

Limitations

Even with the significant amount of data that has been gathered from this study, there are still several limitations that were present within this study that must be

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mentioned and further reviewed. To begin with, this study consisted of a survey that was conducted online, which may include bias caused by the influence of their surrounding environment and any other external stimuli. Additionally, it is difficult to know if the respondent is thoroughly reading the questions and actually partaking in the survey, or if they are selecting responses at random without reading the questions. This could not be controlled because of the nature of how the study was conducted. In order to minimize this from occurring, future studies should be conducted in a more controlled environment, while still maintaining the confidentiality and anonymity of participants. Additionally, participants might not have felt entirely comfortable with providing truthful responses, even on an anonymous survey. This can be seen by some participants choosing not to respond to certain questions. The questions “Have you ever experienced feelings of isolation as a result of using social media?” and “Have you ever experienced feelings of low self-esteem as a result of using social media?” were each missing two responses (1%). Additionally, one response (.5%) was missing from both, “What is the duration per day that you are on social media?” and “How many times per week do you use social media?”

Another limitation is that open-ended questions were used, that received a variety of responses that were open to interpretation. There were several single word or condensed answers that could have had more than one meaning. Since it is highly difficult to understand exactly what a participant means without a detailed response, assumptions had to be made when it came to interpreting certain responses. When including open-ended questions in future research, a minimum word requirement should be set to assist in better understanding participant’s responses. The question pertaining to

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cyberbullying, also created a limitation. Participants were presented with the opportunity to choose between the responses; if they have experienced cyberbullying, witnessed cyberbullying, or not encountered any cyberbullying while using social media. However, they were not provided with the option to choose if they have experienced cyberbullying, as well as witnessed it. Further research should be conducted involving cyberbullying and social media, in order to acquire additional data.

Another limitation is that this study only looked at gender and did not differentiate participants by various age groups or race. Further research should be conducted that includes data for race and other age groups. Additionally due to this being a correlational study, it could only be determined if a relationship was present between variables. Correlation studies lack the ability to reveal the cause of a relationship and which variable has influence over the other. Despite this, valuable information can still be acquired from learning if a relationship is present.

CHAPTER 4 - CONCLUSION

Social media is a relatively new concept that is constantly evolving and growing in popularity. Due to this, there are many unknown and therefore unpredictable variables associated with it. Recently, it has been discovered that the use of social media platforms can have adverse effects on the psychological health of its users. However, the full extent of how the use of social media effects the public has yet to be determined. This study has confirmed that social media envy can have an impact on an individual's level of

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depression. Additionally, other potential causal factors of depression have been discovered, which require additional exploration.

The significance of such findings, is that it can facilitate further research pertaining to social media and mental health. Additionally, the information gathered from this study can assist professionals in the medical field. This can be done by recommending that potential causal factors from social media be considered and/or addressed when interacting with patients that have been diagnosed with depression. Furthermore, if the findings from this study are used to acquire further knowledge and to advance techniques that are implemented within the field, this can potentially lower the rate of depression as well as prevent potential suicides from occurring.

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APPENDIX A

ONLINE SURVEY CONSENT FORM

Study Title: The Impact of Social Media on Depression in 18-34-Year-Olds in the United States

Principal Researcher: Daria Krylova

Faculty Sponsor: Dr. David Thomas

You are being invited to participate in a research study conducted through Florida Gulf Coast University. This study is being done as part of a class, in order to gain a Master's degree from this University. In order for you to participate in this study, the University requires that I obtain your signed consent. You must be at least 18 years old to take this survey.

Your participation in the study is completely voluntary. If you decide to participate now you may change your mind and stop at any time, for any reason, without penalty or loss of any future services you may be eligible to receive from the University. You can choose to not answer an individual question or you may skip any section of the survey by clicking "Next" at the bottom of the survey page to move to the next question.

The purpose of the study is to determine if there is a correlation between social media usage and the rate of depression.

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I am asking you to take part in the study because you are a male or female between the ages of 18-34 who uses social media.

If you agree to be part of the research study, you will be asked to complete an online survey about your experiences with using social media and how using it has made you feel. We expect the survey will take about 10 minutes to complete. The survey cannot be completed in more than one session.

There is a slight chance of harm if you complete the survey. The completion of the survey may cause emotional discomfort. Some of the survey questions ask about feelings of depression and suicidal thoughts, which may be distressing to you as you think about your experiences. Please contact the National Suicide Prevention Lifeline (1-800-273-TALK [8255]) if you need assistance.

Although your participation in this research may not benefit you personally, it will help increase the knowledge of the use of social media and depression.

If you join the study, we will make every effort to keep your information confidential and secure by not asking for any individually identifying information; although any information that is obtained will be stored on SurveyMonkey's private database, as well as on the faculty sponsor's secure computer. However, despite these safeguards, there is the possibility of hacking or other security breaches that could compromise the

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confidentiality of the information you provide. Thus, it is important to remember that you are free to decline to answer any question that makes you uncomfortable for any reason.

We will not release information about you unless you authorize us to do so or unless we are required to do so by law. If results of this study are published or presented at a professional meeting, no information will be included that would make it possible to identify you as a study participant.

After completing the survey, SurveyMonkey will provide you with \$0.50 towards a charity of your choosing, to thank you for joining this study.

If you have any questions about this study, you may contact Dr. David Thomas at 239-590-7313.

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects' Institutional Review Board through Sandra Terranova, Office of Research and Sponsored Programs, at 239-590-7522.

Statement: I have read the preceding information describing this study. All of my questions have been answered to my satisfaction. I am 18 years of age or older and freely consent to participate in the study. My decision to participate or to decline participating in this study is completely voluntary. I understand that I am free to withdraw from the study at any time. I am aware of my option to not answer to any questions I choose.

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I understand that it is not possible to identify all potential risks I believe that reasonable steps have been taken to minimize both the known and potential but unknown risks. The submission of the completed survey is my informed consent to participate in the study.

If you would like a copy of the consent form, print a copy before continuing.

Electronic Consent

By checking “Agree” you are consenting to participate in this research survey. If you do not wish to participate, click the “x” in the top corner of your browser to exit.

Thank you for your time.

Daria Krylova

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APPENDIX B

ONLINE SURVEY

The Impact of Social Media on Depression in 18-34-Year-Olds in the United States

1. What social media websites/applications are you active on? (Please check all that apply)

Facebook

MySpace

Twitter

LinkedIn

Instagram

YouTube

Tumblr

Pinterest

Google+

Other (Please specify): _____

2. How many times per week do you use social media?

a. Less than once a week

b. 1-3 times a week

c. 4-9 times a week

d. 10-15 times a week

e. Greater than 15 times a week

3. What is the duration per day that you are on social media?

a. Less than 30 minutes

b. Between 30 minutes and 1 hour

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- c. Between 1 hour and 5 hours
- d. Between 5 hours and 10 hours
- e. Greater than 10 hours

4. What do you use social media for? (Please check all that apply)

- Networking
- Staying connected with friends and family
- For business (ex. Marketing, communicating with clients, etc.)
- For entertainment (ex. Games, music, etc.)
- Other (Please specify): _____

5. How would you describe depression? (Check all that apply)

- Feelings of hopelessness
- Sadness
- In ability to feel pleasure
- Mood swings
- Restless sleep
- Social isolation
- Fatigue

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Loss of interest

6. Have you ever been diagnosed with depression?
 - a. Yes
 - b. No
 - c. Have never been tested

7. Have you ever experienced feelings of sadness as a result of using social media?
 - a. Yes
 - i. Please explain what caused this.
 - b. No
 - c. I don't remember

8. Have you ever had suicidal thoughts as a result of using social media?
 - a. Yes
 - i. If yes, how often?
 - a) At least once daily
 - b) 2-5 times a week
 - c) 1-7 times a month
 - d) Less than once a month
 - b. No
 - c. I don't remember

9. Have you ever experienced feelings of isolation as a result of using social media?

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a. Yes

i. If yes, how often?

a) At least once daily

b) 2-5 times a week

c) 1-7 times a month

d) Less than once a month

b. No

c. I don't remember

10. Have you ever experienced feelings of low self-esteem as a result of using social media?

a. Yes

i. If yes, how often?

a) At least once daily

b) 2-5 times a week

c) 1-7 times a month

d) Less than once a month

b. No

c. I don't remember

11. Have you ever encountered cyberbullying on social media?

a. Yes, I have personally been cyberbullied

b. Yes, I have witnessed someone else be cyberbullied

c. No