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Positive and Negative Effects of Social Media on Adolescent Well-Being.

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Positive and Negative Effects of Social Media on Adolescent Well-being.

By

Katie Kennedy

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

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In

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Positive and Negative Effects of Social Media on Adolescent Well-being.

Katie Kennedy

This thesis has been examined and approved by the following members of the student's committee.

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Dr. Joseph Visker

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Dr. Emily Forsyth

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Abstract

Social media: Positive and negative affects on adolescent well-being in Goodhue County, MN. Katie Kennedy. Master of Science in School Health. Minnesota State University, Mankato (2019).

Social media use is rapidly growing among adolescents, studies cite that the rates of "constant use" doubled from 2015 to 2018 (Anderson & Jiang, 2018; Lenhart, 2015). Social media use can have a serious negative impact on areas of well-being including feelings of depression, anxiety, fear of missing out, body image, bullying and sleep. Mojtabai, Olfson and Han (2016) cite the problematic use of mobile phones and social media applications as one of the trends aligning with the increase in major depressive episodes. Conversely, use of social media can promote positive feelings of well-being including creating a sense of community, providing access to needed health information, helping create new relationships and maintain existing ones and offering a platform for self-expression and creation of self-identity.

The purpose of this study was to compare the positive and negative impacts of the top four social media platforms used by adolescents on 14 areas of well-being. SPSS was used for data analysis to compare well-being scores for Facebook, Instagram, Snapchat and YouTube. Analysis was also completed to see if there was a relationship between time spent online and perceived well-being. Consistent with research, the majority of adolescents cite that their smartphone is the primary way they access social media. YouTube was identified as having the most positive impact on adolescent well-being while Instagram was perceived as having the most negative. Time spent online indicated a weak, positive correlation to well-being with only YouTube.

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Chapter I

Social media is defined as "electronic communication (such as websites for social networking and microblogging) through which users create online communities and share information, personal messages and other content" ("Social Media", 2004, para. 1). The most cited reason for internet usage in households located within the United States is the desire to engage in communication between family and friends and looking for information (Anderson & Jiang, 2018; Duggan & Smith, 2013; Fallows, 2004; Kennedy, Smith, Wells & Wellman, 2008). Facebook, the largest social media platform, acknowledges the desire for connectedness and information in their mission and vision statement; to see "people use Facebook to stay connected with friends and family, to discover what's going on in the world and to share and express what matters to them" (Facebook, n.d., para. 2). Information seeking behavior is cited by Duggan and Page (2016), who found that over half of Americans get their news via social media and learned about the 2016 presidential election from various social media news feeds.

Social media is an increasingly popular tool with 77% of respondents within the United States owning at least one social media profile in 2018 (Edison Research, 2018). Social media use has grown from approximately 56% of users having more than one profile in 2016 to the average consumer citing use of more than four different social media platforms in 2018 (Duggan & Page, 2016; Smith & Anders, 2018). Social media is used for various reasons including making communication faster and information available within seconds, providing opportunities for collaboration and support, delivering a global network of entertainment, helping users form a sense of self-identity

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and offering access to employment opportunities. Different social media platforms are created, and continue to be created, to fit these demands. Myspace, Facebook, Twitter, LinkedIn, Instagram, Vine, Snapchat, YouTube, Google+, Pinterest, Tumbler, Redditt, and WhatsApp are some of the different social media platforms currently offered. Facebook continues to lead the social media world. In 2017, Verto Analytics (2018) found 239 million users accessed their profiles at least once a month; with over half logging in on their mobile phones.

While approximately 76% of Americans age 18-64 use social media, teenagers are the demographic with the highest internet and social media use of any age group with 92% of teens accessing the internet daily and having an average of four social media platforms (Murphy, Olson, & Miller-Regan, 2018; Smith, Anderson & Caiazza, 2018). A review of research indicates that time spent on social media as well as the type of activity performed during that time, active or passive engagement, correlates with both positive and negative perceptions of overall well-being. The Centers for Disease Control and Prevention (CDC) (2018) indicate that overall well-being is self-measured, discussing that it is an overall sense of happiness and satisfaction in areas of life. The World Health Organization (2014) includes the term well-being in their definition of mental health, stating that "mental health is a state of well-being in which every individual realizes his or her own potential…" (WHO, 2014, para. 1). Well-being includes, but is not limited to, feeling positive emotions and moods in the following areas: physical well-being, emotional well-being, economic well-being, social well-being,

psychological well-being, development and activity, life satisfaction, engaging activities and work (CDC, 2018).

Statement of the Problem

A review of the research shows that social media can have positive impacts on well-being, including providing adolescents with a sense of support, specifically emotional support. Users may be able to garner supportive comments, likes, build empathy or find a community who is struggling with similar issues (Pornsakulvanich, 2017; Shapiro & Margolin, 2014). Shapiro and Margolin (2014) also note that many teens use social media for self-expression and to connect with like-minded communities. Some social media communities, the lesbian, gay, bisexual, trans and queer (LGBTQ+) communities for example, are using social media platforms as a tool to identify adolescents who may be at risk for suicide (Shapiro & Margolin, 2014). Most studies explain these positive benefits of social media use in general, but do not designate which social media platform has individual benefits on overall well-being.

Another positive aspect related to social media highlighted in the review of research revolves around access to information, including knowledge of current events, politics and finding health information. Social media users, specifically those on Twitter and Facebook, were significantly more likely to get the flu vaccine (Ahmed, Quinn, Hancock, Freimuth & Jamison, 2018). Sharing health issues, requesting health information or advice, and messaging health providers are some of the cited benefits of social media use (Hausmann, Touloumtzis, White, Colbert & Gooding, 2017; Zhao & Zhang, 2017). Knowledge of current events, news, and attention to politics were also

cited at higher levels in people who were active social media users (Allcott, Braghieri, Eichmeyer, & Gentzkow, 2019).

A large majority of the research reviewed tended to focus on the potential negative effects social media can have on well-being, with many studies pointing toward the negative impact on mental health. Current literature cites that social media and internet use, specifically before bed, correlates with adolescent's lack of quality and quantity of sleep (Chassiakos et al., 2016; Strickland, 2017; Woods, 2016). Weaver, Barger, Malone, Anderson and Klerman (2018) found that teens who get six hours of sleep a night can be three times as likely to consider or attempt suicide while other studies have found correlations between lack of sleep and anxiety, anger, drug use and depression (Arora et al., 2018; Bauducco, Flink, Jansson-Frojmark & Linton, 2016; Woods, 2016).

Other negative well-being outcomes that social media use has been linked to include increased levels of anxiety and depression, specifically on image-driven platforms like Facebook and Instagram (Burrow & Rainone, 2017; Shapiro & Margolin, 2014; Wright, White & Obst, 2018). Cyberbullying has been shown to have a stronger correlation to suicidal attempts than bullying done face-to-face (Kuehn, Wagner & Velloza, 2018). Walsh (2017) noted that adolescents reported lower levels of self-worth after passively browsing social media sites like Facebook and Instagram while Beyens, Frison and Eggermont (2016) found that browsing social media news feeds positively correlated with a specific type of anxiety called fear of missing out, or FoMO. Research indicates that FoMO is a mediating factor when measuring adolescent distraction in

academic classes and directly correlating with perceived lower levels of life satisfaction, increased levels of anxiety, less satisfaction with relationships and feelings of being overwhelmed (Fox & Moreland, 2015; Przybylski, Murayama, DeHaan & Gladwell, 2013; Shafer, 2017; Utz, Tanis, & Vermeulen, 2016).

The average teenager uses four social media platforms, seamlessly moving between them (Smith, Anderson & Caiazza, 2018). A review of the literature indicates that Facebook and Instagram, both highly visual social media platforms, have been studied regarding effects on well-being, specifically focusing on depressive symptoms, anxiety, FoMO, addiction, social support, and effects on body image. While teens do use Facebook and Instagram, they report Snapchat, Instagram and YouTube as their most valued and important social media platforms (Anderson & Jiang, 2018; Murphy, et al., 2018; Verto Analytics, 2018). Anderson and Jiang (2018) cite that while only 51% of teens have Facebook profiles, 85% of adolescents maintain active YouTube accounts and 69% utilize Snapchat daily. Strickland (2014) found that teens are spending an average of 3.2 hours a day on different social media platforms with 1 in 5 adolescents citing use in excess of six hours per day. Other studies find social media use to be much higher, with Asano (2017) finding teens spending as much as nine hours per day online, the majority of that time spent on YouTube.

Each social media platform has something unique to add, potentially providing one of the reasons that adolescents may be using multiple platforms (Smith, Anderson & Caiazza, 2018). Adolescents cite using YouTube for information, as a how-to or user-guide, as well as for entertainment purposes (Moreau, 2018). YouTube is not just passive

content. The platform allows users to upload favorite entertainment clips or self-made made videos that other users can view, like, follow, and comment on, thus engaging in active usage. Instagram and Facebook are used as a photo-based diary of life, allowing viewers to share current events and keep up with the activities of those they follow (Becker, 2016). Instagram has a purely photo-based newsfeed allowing for instant documentation and providing a platform for cross lingual communication (Becker, 2016). Instagram allows for creative development of self-identity, with 53% of Instagrammers citing that it's use aided them in defining who they are (Becker, 2016). The only option for icon feedback on photos or videos is the "like" button, although users are able to comment and "like" other's comments as well. Filters are always presented as an option when posting on Instagram and commonly used to create "perfect" images (Becker, 2016). Facebook users can share stories as well as pictures, without worrying about the 2,200 character limit set by Instagram. Facebook offers the use of filters on visual posts as well as a maximum of 63,206 characters per post (Jackson, 2017). Facebook also offers more options for emotional reactions to posts, allowing users to like, love, dislike, be sad, amazed, or angry, as well as comment (Facebook, n.d.). Snapchat is used by teens as a form of picture text messaging. It is appealing because it is new, simple, constantly updated with new photo filters, allows users to talk and see others in real time, and does not allow publicly viewable comments or feedback on messages (Molla, 2017). Messages sent via Snapchat may only be visible for a brief amount of time (seconds) determined by the sender, then the messages disappear, a feature which has been linked to feelings of jealousy and mistrust in adolescent friend, romantic and family

relationships (Vaterlaus, Barnett, Roche & Young, 2016). Because teens are using a multitude of platforms for different reasons it is important to understand how each platform used affects their well-being.

With the majority of current research focusing on highly visual social media sites like Facebook and Instagram, the data focusing on the effects of social media on well-being can be skewed. There is a lack of research identifying the overall positive and negative impacts on well-being within the highly visual social media platforms adolescents use the most, like YouTube and Snapchat (Anderson & Jiang, 2018; Murphy et al., 2018; Verto Analytics, 2018). This information is vital in aiding adolescent social media education. Education is a mitigating factor on social media's influence on negative body image and self-esteem (McLean, Wertheim, Masters & Paxton, 2017). Parent support and involvement have also proven to improve adolescents view of self-worth, decreasing negative life comparisons (Weinstein, 2017). This study aims to increase knowledge on the influences that each social media platform may have over adolescent well-being.

Significance of the Problem

Arain et al. (2013) identifies adolescence as being a key time for brain development and cites that social media is playing a growing role in that development. Some of the factors that influence brain development in adolescents include areas of well-being impacted by social media like sleeping patterns, psychological health and mental health (Arain et al., 2013). As social media and internet use are rapidly replacing some of the time that adolescents previously spent reading, sleeping, being active,

watching TV, and having face-to-face conversations it is increasingly important to study how social media is impacting adolescents (Twenge, Joiner, Rogers & Martin, 2017). Social media lends itself extremely well to activating the limbic system, or pleasure seeking part of the brain, potentially leading to social media addiction a notion reinforced by the creation of the Berge Facebook Addiction Scale (Whiteman, 2015).

Use of social media is growing. Currently almost 95% of teens have access to a smartphone, up from 75% in 2015 (Anderson & Jiang, 2018; Lenhart, 2015). Approximately half of adolescents report checking social media and being online almost constantly, rising from 24% in 2015 (Anderson & Jiang, 2018; Lenhart, 2015). The National Alliance on Mental Illness (NAMI) (n.d.) cites that one in five adolescents will suffer from a serious mental illness, with a significant jump in major depressive episodes (Mojtabai, Olfson & Han, 2016). Mojtabai, Olfson and Han (2016) cite the problematic use of mobile phones and social media applications as one of the trends aligning with the increase in major depressive episodes. A review of the literature links social media platforms, specifically Facebook, with low levels of self-esteem, an increase in depressive symptoms and loneliness (Chassiakos et al., 2016; Weinstein, 2017; Woods, 2016). With the majority of teens using several types of social media during adolescence, a critical brain developmental stage, and having easy access to mobile technology, it is important to understand the different outcomes social media can have on adolescent well-being in order to identify needed interventions that pertain to individual social media platforms, especially the platforms teens cite using the most (Arain et al., 2013).

The purpose of this study is to compare the positive and negative impacts on well-being of the top 4 social media platforms used by adolescents age 15 – 18 in Goodhue County, MN. This study aims to compare the components of well-being including; access to health information, emotional support found, feelings of anxiety, presence of depressive symptoms, feelings of loneliness, ability to find self-identity, finding and forming real world relationships, bullying, self-expression and Fear of Missing Out (FoMO) (CDC, 2018; Royal Society for Public Health, 2017). Each measure of well-being is evaluated on an individual basis, for each of the four platforms teens cite using the most including Facebook, Snapchat, Instagram and YouTube.

Research Questions:

1. Which social media platform has the highest perceived positive impact on adolescent well-being?

2. Which social media platform has highest perceived negative impact on adolescent well-being?

3. What is the relationship between time spent on social media and perceived adolescent well-being?

Limitations

One limitation is the time to distribute and collect the surveys. The designated survey time will have to be during the school district's allotted schedule. Access to a range of students within the school day can be a limitation based on classes students take and what time of the day it is. Schedules will restrict which students can be surveyed. Another limiting factor is permission to participate in the survey at the District,

Superintendent, principal, parent and student levels. One final limitation is that

participants are selected through convenience sampling. Participants were chosen within

already defined groups of people, or classes that are in close proximity to each other.

Delimitations

Delimitations include the age range of adolescents, with adolescents between the

ages of 15-18 being selected to survey. The age requirement to open an account on most

social media platforms is 13. Surveying adolescents starting at age 15 allows them to

have experience with social media. This study is also limited to students in one county

that attend a public school and are in a health and/or physical education class.

Assumptions

Assumptions include that while collecting data, students will read and understand

the terminology in each question. Another assumption is that students will answer each

question honestly. The final assumption is that students sampled in grade levels are

similar to other students within the county being studied.

Definition of Terms

Active social media use– liking or favoriting posts, voting, sharing content online or

commenting on or responding to comments and posting your own content (Chassiakos et

al., 2016).

Cyberbullying – "Cyberbullying is bullying that takes place over digital devices like

cell phones, computers, and tablets. Cyberbullying can occur through text and apps, or

online in social media, forums, or gaming where people can view, participate in, or share

content. Cyberbullying includes sending, posting, or sharing negative, harmful, false, or

mean content about someone else. It can include sharing personal or private information about someone else causing embarrassment or humiliation" (United States Department of Health and Human Services, 2017, para. 1).

Digital distraction – Electronic or computerized technology that causes a user's attention to be pulled away from something or technology that makes it hard to think or concentrate on the task at hand ("Digital", 2018; "Distraction", 2018).

Downward comparison – Seeing oneself as superior to or better off than others in aspects of life including, but not limited to friendships, family relationships, physical looks, intelligence, life success (Steers, Wickham, & Acitelli, 2005).

Fear of Missing Out (FoMO) – "Defined as a pervasive apprehension that others might be having rewarding experiences from which one is absent. FoMO is characterized by the desire to stay continually connected with what others are doing" (Przbylski et al., 2013, para. 1).

Likes – "A Like is an action that can be made by a Facebook or Instagram user. Instead of writing a comment or sharing a post, a user can click the Like button as a quick way to show approval" (Stec, 2018, para. 61).

Newsfeeds – "a web page or screen that updates (= changes) often to show the latest news or information" ("Newsfeeds", 2018, para. 1).

Optimistic bias – "the belief that bad things happen to other people" (Chapin & Coleman, 2017, para. 4).

Passive browsing – Use of social media involves scanning, reading and watching other profile's posts but refraining from engaging by liking, commenting or posting (Chassiakos et al., 2016).

Risky behavior – behaviors that put your health and happiness at risk, including but not limited to "using tobacco, alcohol, or illegal drugs, engaging in violent behavior and sexual activity" (University of Texas Health Science Center, 2017, para. 1).

Self-identity - "the recognition of one's potential and qualities as an individual, especially in relation to social context" ("Self-identity", 2018, para. 1).

Social endorsement – "a public or official statement of support or approval" ("Endorsement", 2019, para. 1).

Social Media - "electronic communication (such as websites for social networking and microblogging) through which users create online communities and share information, personal messages and other content" ("Social media", 2004, para. 1).

Social Media addiction – excessive use of social media platforms, like Facebook, where so much time is spent on the social media site that it interferes with other aspects of life (Walker, 2018).

Social Networking – "An online service or site through which a network of individuals (such as friends, acquaintances, and coworkers) create and maintain interpersonal relationships." ("Social network", 2018, para. 1-2).

Upward comparison – Viewing oneself as inferior to, or not as good as others in aspects of life including, but not limited to friendships, family relationships, physical looks, intelligence, life success (Steers, Wickham & Acitelli, 2014).

Well-being – "Well-being includes the presence of positive emotions and moods (e.g., contentment and happiness) the absence of negative emotions (e.g., depression and anxiety), satisfaction with life, fulfillment, positive functioning and physical well-being (e.g., feeling very healthy and full of energy). Well-being includes the following areas: Physical well-being, economic well-being, social well-being, development and activity, emotional well-being, psychological well-being, life satisfaction, domain specific satisfaction and engaging activities and work." (CDC, 2018, para. 12-13).

Chapter II: Review of the Literature

History of Social Media

Social networking systems and social media are terms that are used almost interchangeably within the literature. Both refer to online services or websites that participants can use to share information, news, videos, pictures, messages, create online communities and receive feedback from people on a global scale ("Social Media", 2004; "social networking, 2018; Wright et al., 2018). The origin of social media in the public can be traced back to 1997, with the launch of Six Degrees and AOL Instant Messenger (Hale, 2015). Six Degrees, a smaller version of Facebook, allowed users to create a profile and connect with friends, expounding on the six degrees of separation theory while AOL Instant Messenger allowed users to talk in real time (Hale, 2015, para. 4-7). Since then a host of different platforms have become available for, but not limited to, news sources, chat rooms, spurring creativity, sharing personal information, dating, and finding employment. In 2012, Facebook became the first social media platform to surpass one billion users, currently logging in with an average of 2.23 billion profiles being accessed at least once every 30 days (Facebook, 2018). Social media consumers are also differentiating their social media portfolios, with the average consumer having three different social media accounts (Verto Analytics, 2018). The most popular social media platforms, other than Facebook, in the United States include: Instagram (116.99 million users), Facebook Messenger (110.95 million users), Twitter (70.21 million users), Pinterest (58.23 million users), and Snapchat (52.09 million users) (Verto Analytics, 2018).

Teenagers are among the most avid consumers of social media with approximately 95% having or having access to a smartphone, a 25% increase from 2014-2015 (Anderson & Jiang, 2018). The number of teens who access the internet "almost constantly" doubled to 45% in 2018, with another 44% claiming to go online at least "several times a day" (Anderson & Jiang, 2018, para. 36). Twenge et al. (2017) found that the average twelfth grader spends around six hours a day online texting, going on the internet (including gaming), and on various social media platforms. This combined time beats the number of hours we spend eating, drinking, in face-to-face socialization, and in self-grooming activities. In a review of research, Strickland (2017) found that the average American teen spends 3.8 hours a day on social media networks with one in five teenagers using social media up to six hours a day. Teenager's choice of social media platforms differs slightly from the general population of the United States. YouTube has the largest number of users with 85% of teens, Instagram comes in second with 72%, Snapchat third (69%), Facebook fourth (51%), and Twitter fifth (32%) (Anderson & Jiang, 2018). It is important to note that these numbers do not add up to 100% because 71% of teens cite having more than one social media profile (Anderson & Jiang, 2018). While YouTube has the most users, the majority of teenagers consider Snapchat to be the most important social media platform they use, followed by Instagram and Facebook (Anderson & Jiang, 2018).

Social Media and Brain Development

Brain images, or magnetic resonance imaging (MRIs), suggest that the adolescent brain is undergoing major transformations between the ages of ten and twenty-four

(Arain et al., 2013). Critical areas in the prefrontal cortex are in stages development

leaving teens to be more likely to engage in risky, pleasure seeking behaviors than adults

(Arain et al., 2013). Tamir and Mitchell (2013) found that the reward systems of the

adolescent brain were more likely to be active when answering questions about self.

Social media platforms like Facebook, Instagram, and Snapchat are personal story driven,

inviting users to post personal pictures, videos or stories, thereby directly appealing to

this pleasurable brain reaction. The same brain reward system activation is found when

adolescents are looking at pictures they feel have a high number of likes, or social

endorsements commonly used on platforms like Facebook, Instagram and YouTube

(Sherman, Payton, Hernandez, Greenfield & Dapretto, 2016). Not only does an MRI

show higher activity levels in the pleasure center of the brain when looking at a picture

with a high perceived number of likes, but if that picture also contains a risky behavior

(teens drinking alcohol, smoking or wearing provocative clothing for example), the

cognitive control network of the brain, that leads decision making, shows decreased

activity (Sherman et al., 2016). This could lead teens to view risky behaviors as

pleasurable, thereby increasing the likelihood they will take part in these riskier behaviors

(Sherman et al., 2016). Arain et al. (2013) highlights the fact that chronic stress, drug

abuse and sedentary lifestyles may have a negative impact on the brain during this key

development time.

　　　　The ability to talk about self and gain supportive likes and comments that

stimulate the pleasure-seeking part of the brain along, with increased levels of FoMO

when not on social media, can potentially lead to a concept known as social media

addiction, a concept reinforced by the creation of the Berge Facebook Addiction Scale

(Whiteman, 2015). This notion of social media addiction positively correlates to

increased use of Facebook and may be shown in the increasing number of teenagers who

report consistently checking social media throughout the day (Anderson & Jiang, 2018;

Whitman, 2015).

Impact of Social Media and Digital Distraction

With teenagers use of social media increasing, it is replacing time spent on other

activities. Social media is displacing activities like reading books, magazines and

newspapers, watching television, participating in non-sedentary behaviors and conversing

with people face-to-face (Twenge et al., 2017). With near constant access to social media

via smartphones, digital distraction has become an area of interest for researchers. Luna

(2018) found that modern technology use is detracting from moments we have in face-to-

face interactions. Participants with smartphones lying face down at the table during a

meal with a friend or family member cited lower levels of enjoyment and connectedness,

along with higher levels of boredom and distraction than those participants who put

devices away (Luna, 2018). Berdik (2018) conducted a similar study with college

students in the classroom, observing and surveying attention spans and learning retention

with and without technology in front of them. Students who had their phones face down

and silenced on their desk performed worse on tests of attention and cognitive processing

than the students who kept their phones in their backpacks, with the largest difference

seen in those students reporting high levels of attachment to their devices (Berdik, 2018).

The students who reported higher levels of multitasking with technology negatively

correlated with lower grades, leading to this particular school, Dominguez Hills, opting

for a partial ban on technology limiting use of computers, laptops and banning cell

phones within the classroom (Berdik, 2018).

Impact of Social Media on Mental Health

Most of the literature reviewed on social media and mental health relates

specifically to Facebook and Instagram. The National Alliance on Mental Illness

(NAMI) (n.d.) cites that one in five teenagers, aged 13-18, have or will have a mental

illness. NAMI (n.d.) estimates that 11% of those with a mental illness will cope with a

mood disorder, such as depression or bipolar disorder and 8% will be diagnosed with an

anxiety disorder, like General Anxiety Disorder (GAD), panic disorder, obsessive-

compulsive disorder, or social anxiety disorder. These mental health challenges leave

significant impacts on diagnosed and undiagnosed teens (NAMI, n.d.). Approximately

half of teens with a mental health challenge dropout of high school and while suicide is

the second leading cause of death for youth age 10 – 24, 90% of those who die by suicide

have a mental health illness (NAMI, n.d.; National Center for Injury Prevention and

Control, 2017). Twenge et al. (2017) and Shafer (2017) both found that a 33 % increase

in the number of teens from 2010-2015 who felt useless, joyless, lonely and had signs of

a depressive illness positively correlated with the rise of smartphone ownership when

economic, schoolwork and unemployment stressors were factored out. Social media use

promotes risky behaviors regarding mental health, including replacing time for face-to-

face conversations and increasing sedentary behaviors, two identified protective factors

against mental illness (Strickland, 2017). Strickland (2017) found that chat rooms and

gaming social media reduced risk of depressive symptoms while those that promoted image sharing increased narcissistic behavior, a risk factor for mental illness.

Time on social media significantly and positively correlates to number of depressive symptoms a social media user has and anxiety levels a social media user perceives (Lin et al., 2016; Twenge et al., 2017; Woods, 2016). This means that the more time one spends on social media, the more depressive symptoms and higher levels of anxiety are reported. Access to social media has also been shown to be a mediator in teen reports of anxiety symptoms, when access to social media, including texting was removed, teens reported considerable increases in their personal levels of anxiety (Woods, 2016). Overall, individuals who spent more than two hours online per day were significantly more likely to have suicidal risk factors (Twenge, et al., 2017). Recently, Allcott, Braghieri, Eichmeyer, and Gentzkow, (2019) found that a control group, who voluntarily deactivated Facebook accounts for one month, reported small, but significant, improvements in levels of well-being, levels of happiness and life satisfaction. Users who deactivated accounts also self-reported lower levels of depression and anxiety compared to the control group (Allcott et al., 2019).

Further research indicates that the way a consumer uses social media platforms has a significant impact on mental health status. Passive browsing on social media has been shown to be particularly harmful to mental health (Frison & Eggermondt, 2017). Frison and Eggermondt (2017) studied self-reported depression scales in teens at two points, nine months apart, finding that passive browsing of Instagram at measure one directly and positively correlated to a depressed mood at measure two. Allcott et al.

(2019) found little evidence to report the same findings in terms of active vs. passive use of social media. Frison and Eggermondt (2017) also discovered that a depressed mood at measure one, predicted posting on Instagram at measure two. Literature suggests that Instagram's use can increase negative life comparisons because it is a more image driven platform that does not require mutual sharing (one user can follow a profile without that profile following the user back) (Lup, Trub & Rosenthal, 2015; Weinstein, 2017). Choosing to use a filter, or not, for your post is a necessary step before each Instagram post and because the only option for emotional icon feedback is liking, mostly positive images or videos are shared (L'Ecuyer, n.d.; Lup et al., 2015; Weinstein, 2017).

Adolescence is a key time for defining self-identity and teens are prone to social comparisons (Weinstein, 2017). Social media use can cause a user to see only the happiest versions of life, creating a sense of inadequacy, unattractiveness and stimulating feelings of jealousy and envy (L'Ecuyer, n.d.; Weinstein, 2017). Weinstein (2017) found that teens with negative pre-browsing well-being (meaning already had negative self-thoughts and negative social comparisons) had significantly worse post-browsing measures of well-being, independent of time spent on social media. Strickland (2014) cites that intense use of Facebook, meaning measures of passive and engaged (liking and commenting) browsing predicted loneliness in college students. Quitting Facebook altogether for one week was had a positive correlation to overall well-being for heavy and passive users (Tromholt, 2016).

Following strangers on Instagram also positively correlates with the number of depressive symptoms a user reports (Lup et al., 2015). Lup, Trub & Rosenthal (2015)

found that teens reported the highest levels of depressive symptoms when 75% - 90% of profiles followed on Instagram belonged to strangers and time online was over 2 hours a day. Following less than 10% of strangers on Instagram proved to be a protective factor against depressive symptoms, even when teens were spending over 2 hours a day on social media (Lup et al., 2015). Similar findings show a positive correlation between number of strangers followed and depressive symptoms, the higher the number of strangers followed, the more depressive symptoms were documented (Chassiakos et al., 2016). A user personally knowing the people they are following, how that person lives and how they act proves to mitigate negative self-comparisons (Chassiakos et al., 2016; Lup et al., 2015).

Impact of Social Media and Cyberbullying

Cyberbullying is another potential consequence of social media use. Positive correlations exist between amount of time spent on the internet and cyberbullying, specifically within social media platforms (Sampasa-Kanyinga, Roumeliotis & Xu, 2014). The more time spent on social media, and on sedentary behaviors in general, the more likely a teen is to have been a victim of cyberbullying (Hamm et al., 2015; Kowalski, Giumetti, Schroeder & Lattanner, 2014; Sampasa-Kanyinga et al., 2014). Cyberbullying has many of the same characteristics as bullying including being a deliberate, repeated behavior, done by an individual or a group of individuals against a victim who has a hard time defending themselves, and both types of bullying are considered an aggressive act or behavior (Chassiakos et al., 2016; Sanfilippo, 2015). The definition of cyberbullying goes on to include the intentional use of social media to

perpetuate false, humiliating, or intrusive information or pictures about another individual that can take place on digital devices like computers, cellphones, smartphones tablets or online applications like email and websites (Chapin & Coleman, 2017; Sanfilippo, 2015; United States Department of Health and Human Services, 2017). Deception, spreading rumors, mean text messages, public shaming, account hacking, impersonation, cyberstalking, exclusion, isolation, posting embarrassing pictures or videos and sexting are all different ways that cyberbullying can take place (Kowalski et al., 2014; Weinstein & Selman, 2014; White, Weinstein & Selman, 2016). Approximately 1/3 of teens surveyed by Chapin and Coleman (2017) cite that cyberbullying happens to other teens, but do not believe that it will happen to them, demonstrating optimistic bias. The 2016 Minnesota Student Survey identified an average of 10% of freshman and juniors had experienced cyberbullying at least once a week within the past 30 days (Minnesota Department of Health, 2016). The National Youth Behavior Risk Survey, completed in 2017, identified 14.9% of high school students had been bullied via texting, Instagram, Facebook or other social media platforms in the past 12 months (CDC, 2017). A review of studies on cyberbullying identified an average of 23% of teens being cyberbullied (Hamm et al., 2015). However, when the phrase cyberbullied was changed to "having mean things said to them" the percentage rose to 70% (Kowalski et al., 2014).

In an analysis of studies on cyberbullying, Strickland (2017) found that social media is appealing because it creates the illusion of companionship, prompting users to change their privacy settings and allowing other social media users to view more self – identifying content. While teens may use social media to stay connected, Hamm et al.

(2015) and White et al. (2016) found that relationships, including those with family, friends and romantic partners, were the most common reason associated with cyberbullying, cited in 91% of all surveys. Use of social media to stay connected can backfire, allowing blocking, ignoring, and defriending features along with the ability to take information out of context causing anxiety and stress (Sokol, 2013; Strickland, 2017). The United States Department of Health and Human Services (2017) discusses cyberbullying as a concern for adults as well as teens, and possibly being more concerning than in person bullying because content can be permanent and happen in any location, creating no safe space for victims, and constant access for perpetrators (United States Department of Health and Human Services, 2017). While extreme forms of cyberbullying may be easy to identify, other forms may be harder to find. A post reading "no one likes you, JK, LOL" on a person's profile wall may be bullying masked as sarcasm or playfulness, making identification harder (Patchin & Hinduja, 2015).

A review of the literature also indicates that cyberbullying can have negative consequences for overall well-being. Strong correlations have been identified between cyberbullying and depression, increased levels of aggression, uneasiness and suicidal idealization, increased use of drugs and alcohol, decreased self-esteem and self-confidence, as well as having negative impacts on existing relationships with family and friends (Chassiakos et al., 2016; DePaolis & Williford, 2018; Hamm et al., 2015). In a longitudinal study, DePaolis and Williford (2018) cite that in addition to lower self-esteem, those that were cyberbullied were significantly more likely to report an increased number of depressive symptoms, lower self-esteem and have lower levels of school

connectedness one and a half years later. Hamm et al. (2015) also found cyberbullying
negatively correlated to school attendance and grades. Kuehn et al. (2018) identified a
stronger correlation to suicidal attempts in those that had experienced cyberbullying (at
4.16%) than those who had experienced in person bullying (2.46%). Constant access to a
victim creates immediate feedback to a bully, making cyberbullying an appealing choice
along with the perceived anonymity that social media can offer (Kowalski et al., 2014).

An area of concern is teenagers lack of knowledge on what to do about
cyberbullying. Chapin and Coleman (2017) found that 56% of teenagers surveyed
blamed the victim to some degree for the bullying, believing the victim did something to
deserve the treatment. Only 14% of students in Chapin & Coleman's study believed that
the bullying was always unwarranted (Chapin & Coleman, 2017). Slonje & Smith (2008)
found that most children and teens (50%) will not tell anyone bullying is occurring, 36%
feel they could tell a friend and 13% cite they could tell a trusted adult. The percentage
of students who would tell a teacher in school positively correlates with a positive
perception of school climate (Simão et al., 2017). Hamm et al. (2015) reported similar
findings in their review of cyberbullying finding that most young adults would not tell
anyone of incidences and didn't know what to do except using passive responses to
cyberbullying including blocking, defriending, ignoring.

Cyberbullying was most common in middle school age children (Kowalski et al.,
2014). High school students were more likely to perceive online attacks as "drama",
being defined by Marwick and Boyd (2014) as "performative" type of conflict that can
take place in front of lots of people and create lots of engagement. Older teenagers were

more likely to report drama on social media but unlikely to define it as cyberbullying

(Marwick & Boyd, 2014; White et al., 2016). A key difference in drama is that teens

perceive it to be dual sided, involving at least two viewpoints and not involving an

imbalance of power (Marwick & Boyd, 2014). Relationship challenges remained the

most common reason for drama, along with meanness and harassment and betrayal

(White et al., 2016). Literature is scarce on the way drama can impact well-being but

calling it drama can be perceived as a protection measure and defense mechanism,

allowing teens to write off incidences as "it's just drama" as compared to being bullying

(Marwick & Boyd, 2014).

Impact of Social Media on Self-esteem

Adolescence is a period when individuals start to form a sense of personal identity

and social comparison can be a part of creating that identity (Weinstein, 2017). Social

media platforms such as Instagram and Facebook offer a self-comparison right from the

beginning, with how many friends or followers each individual user has, similar to an

online popularity contest (Fox & Moreland, 2015). Teens use one of two types of

comparisons on social media: upward comparisons, seeing themselves as inferior to

others or downward comparisons, seeing oneself as better off or superior to others

(Wickham & Acitelli, 2005). While downward comparisons are associated with

increased levels of self-esteem and decreased levels of anxiety, upward comparisons are

associated with increased number of depressive symptoms and decreased levels of self-

esteem (Burrow & Rainone, 2017; Steers et al., 2005). Passive browsing of social media,

specifically studied on Facebook, led to reports of negative self-image, regardless of time

spent online, may show that how a social media consumer uses social media is important in creating a positive self-identity (Walsh, 2017).

Social media can have both a positive and negative impact on an individual's self-esteem. Presentation of self on social media is linked to the perception of peer acceptance and level of belonging, as can be directly indicated by the number of likes or comments a social media post may receive (Wright, White & Obst, 2018). Young adult social media users are more likely to "like" a post or picture that already shows a favorable response by other users, whether they truly cared for it or not, representing false liking behavior (Burrow & Rainone, 2017; Wright et al., 2018). Burrow & Rainone (2017) found that the reward system of the brain was stimulated when looking at a post with a perceived high number of likes, perhaps prompting feelings that the user also likes that post, or should, regardless of the user's true feelings. False liking behavior is positively correlated to false presentation of self on social media, meaning that users are more likely to relay a sense of self that they believe to be acceptable to specific situations or groups rather than present a true self-presentation (Wright et al., 2018). Shapiro & Margolin (2014) noted that creating several versions of true selves is a common behavior when matching self-presentation to an intended audience. Self-presentation was found most often to be a true representation but modified to fit different expectations or intended audiences (Shapiro & Margolin, 2014). True representations of self online are linked to positive online and offline relationships, a positive sense of community and positive self-esteem (Shapiro & Margolin, 2014; Wright et al., 2018). False presentations of self, in liking behavior or posting behavior correlate to increased levels of anxiety,

stress and depression symptoms, most notably when users have a premeasured low sense of self-esteem (Shapiro & Margolin, 2014; Wright et al., 2018).

High levels of self-esteem and high satisfaction of life and purpose of life scores were mediating factors in presenting false liking behaviors, demonstrating that if a young adult had a positive self-esteem and high purpose in life score they were less likely to use false presentation behaviors (Burrow & Rainone, 2017; Wright et al., 2018). Utz et al. (2016) found that personality characteristics, like the need for popularity, could predict social media use and behavior. The need for popularity predicted behaviors like grooming, strategic self-presentation, profile enhancement and disclosure of feelings while also positively relating to feelings of entitlement, vanity and narcissism (Utz et al., 2016). Vanity, narcissism and entitlement, predicted by a high need for popularity also correlated with a negative self-esteem (Utz et al., 2016). The need for popularity predicted social media behavior better than the need to belong did, verifying that an individual only needs a few intimate relationships to feel like they belong, a positive effect on self-esteem (Utz et al., 2016).

Impact of Social Media on Body Image

The use of highly visual, photo based social media platforms like Facebook and Instagram has been shown to increase body image concerns in both female and male adolescent users (Burnette, Kwitowski, & Mazzeo, 2017; Cohen, Newton-John & Slater, 2017; de Vries, Peter, de Graaf & Nikken, 2016; Holland & Tiggemann, 2016; Marengo, Longobardi, Fabris & Settanni, 2018; Tiggemann & Slater, 2013). Studies vary in their findings on whether overall time spent on social media or the way social media is utilized

are factors on the user's body image concerns. Marengo et al. (2018) found that the amount of overall time spent on highly visual social media positively correlated with body image concerns and internalizing symptoms. In contrast, Cohen et al. (2017) cited that the way social media accounts are used affect negative body image concerns, regardless of how much time is spent on social media. Following fitness and health accounts as well as celebrity profiles positively correlated with an increased thin idealization; the same drive for thinness was not found in users who followed acquaintances or non-appearance-based accounts, like travel-based profiles (Cohen et al., 2017). Instagram users scored much higher on body surveillance surveys than Facebook users did, meaning Instagram users had a higher drive for thinness and more body image concerns (Cohen et al., 2017). In different studies, Facebook, Myspace, and Instagram users scored significantly higher on drive for thinness and body image concerns than non-social media users scored, leaving the assumption that photo-based platforms could be more harmful to body image and increase the users internal drive for thinness (de Vries et al., 2016; Tiggemann & Slater, 2013). de Vries et al. (2016) extended the research in a longitudinal study that found high levels of social media use at measure one predicted higher levels of body dissatisfaction in males and females at measure two. However, high levels of body dissatisfaction at measure one did not predict high levels of social media use at measure two (de Vries, 2016).

In addition to highly visual social media exposure, Holland and Tiggemann (2016) determined that negative feedback from peers, including comments and liking or non-liking, on photo-based posts also positively correlated with disordered eating and

body dissatisfaction. Education and parent involvement and support appear to be mitigating factors (Burnette et al., 2017; McLean et al., 2017). Burnette et al. (2017) found that parent involvement and school lessons on self-esteem and media literacy were key components to recognizing touched up images and understanding other's posts as highlights of experiences, not a summation of everyday life. Students interviewed were members of a private school and noted that they did not believe their friends from other schools had the same feelings or thoughts toward social media posts (Burnette et al., 2017). McLean et al. (2017) ran an experimental study that exposed a group of students at one school to three 50-minute class periods on social media literacy, specifically targeting social media and image manipulation, while the control group attended regular classes. There was a significant, medium sized effect that showed an improvement in body image and disordered eating within the experimental group compared to the control group in both male and female students a week after lessons ended (McLean et al., 2017).

Impact of Social Media and Fear of Missing Out

As much as social media sites promote friendship and connectedness, they can also foster a particular type of anxiety called fear of missing out, or FoMO. FoMO is defined as an ever present apprehension that others might be having a fun or rewarding experiences that you are not invited to, cannot attend, or not aware of, as well as identifying a need to stay continually connected to what others may be doing (Beyens, Frison, & Eggermondt, 2016; Oberst, Wegmann, Stodt, Brand, & Chamarrow, 2017; Przbylski et al., 2013). Strickland (2017) found that FoMO can foster feelings of exclusion and upward comparison, prompting lower levels of happiness, higher

indications that they perceive life as not being fair, and increased feelings of

victimization, especially on Instagram and Facebook. Teens are feeling more replaceable

in friendships and groups to which they belong, verbalizing the perception that if they

don't respond to a message or post quickly enough they will be replaced with a "better"

friend (Shafer, 2017). This results in some adolescents checking their social media

platforms as often as every 15 minutes and showing an increase in levels of anxiety when

they cannot check their accounts (Strickland, 2017). Beyens et al. (2016) indicated that

one in ten adolescents report that not feeling like they belonged to a group of peers on

Facebook was stressful to extremely stressful while one in four youths found not being on

Facebook was stressful to extremely stressful because they felt that when they went to

school the next day, they would be behind on current events. Adolescents with a high

need for popularity, low levels of needs satisfaction (for competence, autonomy and

connectedness), low general mood or overall poor life satisfaction scale also reported

much higher levels of FoMO (Beyens et al., 2016; Przybylski et al., 2013).

Social media engagement levels were also predicted in a cyclical pattern. Higher

levels of FoMO and lower levels of self-esteem and life satisfaction positively correlate

to increased social media use in an attempt to feel connected, which in turn predicted

higher levels of FoMO (Przbylski et al., 2013). Feelings of FoMO tend to decrease with

age, being replaced with feelings of social media obligation. Fox and Moreland (2015)

interviewed groups of young adults and found that social media often felt obligatory and

more like a job. Homogenous groups interviewed cited that they currently belonged to

some social media platforms because their friends did, and that they felt pressure to stay

current and comment to prevent conflict instead of using for social engagement (Fox &
Moreland, 2015).

Impact of Social Media and on Sleep

Use of technology has also been linked to impairing adolescent sleep patterns
(Bauducco et al., 2016; Woods, 2016). The National Sleep Foundation (n.d.)
recommends between 8 and 10 hours of sleep each night. Over 70% of teens in the
United States are getting less than eight hours of sleep each night, with 15% getting under
6 hours (Weaver et al., 2018). Sleep, or lack thereof, is directly linked to mental health.
High school students who get less than six hours of sleep a night may be twice as likely
to engage in unsafe behaviors like alcohol, tobacco or marijuana use, drive under the
influence, self-harm, engage in risky sexual behavior, consider or attempt suicide as well
as reporting higher levels of emotional problems like anxiety, depression and anger
(Baudducco et al., 2016; Bharanidharan 2018; Weaver et al., 2018).

Twenge et al. (2017), cited that while most teens are already sleeping less than the
recommended hours, those teens that spend high levels of time on social media platforms
are more likely to be not getting enough sleep. Getting low levels both in quality and
quantity of sleep, held especially true for those teens who sleep with their phones in their
bedrooms, additionally finding that the more devices a teen had in their bedroom the
more disturbances in sleep were reported (Chassiakos et al., 2016). Approximately 86%
of adolescents sleep with a device in their bedroom, a quarter of these teens report
interruptions in sleep due to text alerts (Woods, 2016). Social media platforms send
regular alerts to users as well, known as notifications. These alerts not only interrupt

sleep, but also create the pressure to be available at all times (Woods, 2016). Night time use of social media has been shown to be more detrimental to sleep quality than social media time during the day (Bauducco et al., 2016; Chassiakos et al., 2016; Strickland, 2017; Woods, 2016). This could be due to stimulating brain activity before sleep or exposure to blue light from screens that suppresses melatonin levels, decreasing sleep quality (Strickland, 2017). Arora et al. (2018) found only a mild association between gaming, social media use and watching TV before bed but a significant negative correlation related to social networking before bed and decreased academic performance in Science and English, when controlled for time spent studying.

Impact of Social Media on Emotional Support and Community Building

Many teens use social media networks as places to increase awareness of current events, find community engagement opportunities, learn about or join marginalized groups, create communities for collaboration, and learn about healthy behaviors or personal interests (Chassiakos et al., 2016). Social media is used to remain in touch and connected with family and friends as well as creating new connections to people with common interests. Connection with others remains a positive aspect of social media. Members of various social media communities can talk to others with similar ideas, hobbies, challenges or interests, broadening affiliations without fear of being judged or dehumanized (Dickins, Feldman & Thomas, 2016). Members of online communities have the opportunity to create an intellectual, emotional and tangible support system that can extend into real life situations and challenges (Dickins et al., 2016). Hausman et al. (2017) reported that the most common reasons cited for social media posting, specifically

related to health information, were seeking advice and looking for support. Emotional

support is the most common category of support received and given on social media

platforms, along with a noted appreciation of the platforms that offer the use of emotional

support choices, in the form of emojis and comments (Pornsakulvanich, 2017). Social

networking systems can help teens develop a sense of identity in allowing them to choose

what they share with others and helping them form social networks (Shafer, 2017).

While causation is difficult to prove, those who have more positive offline relationships

report higher levels of satisfaction with online relationships (Shapiro & Margolin, 2014).

Social media allows teens increased access to others and increases opportunities for self-

disclosure, which can have positive impacts for those looking to enhance relationships,

find support and make meaning out of suffering or challenges (Shapiro & Margolin,

2014). For those who have a hard time with eye contact or feel socially awkward, social

media networks allow them an opportunity to connect with others in a format that may be

more comfortable, helping them form an identity and be more in control of other's

perceptions of them (Shafer, 2017).

The sense of social support social media can offer has positive impacts on overall

well-being. Users can gain a greater sense of purpose of life, increased levels of

happiness, improved mental health, and be provided with a sense that one is loved, cared

for, listened to, supported and encouraged (Strickland, 2017). This sense of social

support has the ability to decrease perceived loneliness and hopelessness as well as

promoting positive moods and a positive state of mind. Social media platforms have the

ability to "raise awareness, connect with people across the world, and share moments of

beauty that can be empowering and uplifting" (Shafer, 2017, para. 7).

Social Media and Access to Information

Access to information is another benefit social media can offer. Social media

profiles have the ability to help students connect with educators and have easy access to

news and relevant information (Ben-Joseph, 2018; Hogan & Strasburger, 2018).

Pinterest, Instagram and Facebook offer opportunities to follow groups or individuals that

are more experienced or may have increased knowledge in a variety of interest areas

(Moreau, 2018). Twitter provides users with access to up to date news and global

information while using appealing picture and graphics to aid understanding and

summaries to catch reader's attention (Moreau, 2018). Wong, Merchant & Moreno,

(2014) found that the largest barrier to using social media for education and information

is the abundance of false or inaccurate information and the largest challenge is guiding

teens toward information they can trust.

Allcott et al. (2019) discussed that deactivating Facebook decreased the amount of

news consumption a person reported from any source (TV, radio, internet or other social

media platforms). Participants who deactivated Facebook cited feeling they knew less

about what was going on in the world (Alcott et al., 2019). The same group also proved

they knew less by performing worse on weekly tests of current events when compared to

the control group, who maintained access to Facebook (Allcott et al., 2019).

Hogan and Strasburger (2018) cite a specific benefit of using of social media to

inform teens on pertinent health issues like vaccination updates or sexual health

information. Texting services connect users to quick health information or violence
prevention services (Hogan & Strasburger, 2018). Hausman et al. (2017) reported that
most respondents surveyed within a Boston Hospital were in favor of having the ability to
text health providers. Evidence suggests that teens with mental health issues are among
the heaviest users of social media and that teens would rather get sensitive health
information from social media sites, the challenge being, again, the abundance of false
information and ever-changing nature of social media (Hogan & Strasburger, 2018;
Strickland, 2017; Wong, et al., 2014). Those with poor health were also found more
likely to post about health issues to connect with others, seek advice and empathy, gain
support and find information (Hausman et al., 2017).

Social media has the ability to reach millions of users with targeted health
information, also making it a cost-effective tool (Wong et al., 2014). While most of the
health information searched for online revolves around fitness and nutrition, diabetes was
the most searched for specific health issue, followed by mental health (Wartella, Rideout,
Montague, Beaudoin-Ryan, & Lauricella, 2016; Zhao & Zhang, 2017). Zhao & Zhang
(2017) also found that the 18-30 year old age group was the most likely to use social
media for health information, participants citing that they looked for information on
social media because they believed lots of other people did the same. While the majority
of teens still get most of their health information from parents and doctors, approximately
84% are also looking for health information online with 1 in 5 teens reporting using
YouTube, Facebook or Twitter specifically (Wartella, Rideout, Montague, Beaudoin-
Ryan, & Lauricella, 2016). Ahmed et al. (2017) found that putting vaccine information

on social media may increase the number of people getting vaccinated. Facebook and Twitter users were significantly more likely to receive a yearly flu vaccination, even though those surveyed maintained that they did not believe information from social media was an influence on their decision (Ahmed et al., 2017).

Summary

In conclusion, there are several negative correlations between social media and well-being concepts including association with increased risk of mental health challenges like depression, anxiety and suicidal idealization. Use of social media has also been linked to disturbances in sleep and incidences of cyberbullying. Use can have both positive and negative impacts on self-esteem. Social media also has the power for good, connecting teens on a global scale, allowing them easier access to information and helping them define their self-identity. Social media use is not going away, as trends indicate it is only growing with Instagram predicting to grow from its current use of 104.7 million users in 2018 to 130.7 million users in 2022 (eMarketer, 2018). Most of the current research revolves around social media and use of Instagram and Facebook, however most teens are using and value YouTube and Snapchat. This study will hopefully help identify the positive and negative aspects of each social media platform, allowing parents, teens and educators to work together to celebrate the good and mitigate the negative.

Chapter III: Methodology

This chapter will discuss the Theory of Reasoned Action and Planned Behavior and its application in order to understand adolescent's perception of how different social media platforms affect overall well-being in a positive or negative manner. The convenience sampling technique that will be used for participant selection, along with participant criteria will be explained within the chapter. Finally, this chapter will also explain how data will be collected and analyzed. The purpose of this study is to compare the positive and negative impacts of the top four social media platforms used by teens age 15 - 18 in Goodhue County, MN on well-being. This study is aimed at answering the following research questions:

1. Which social media platform has the highest perceived positive impact on adolescent well-being?

2. Which social media platform has highest perceived negative impact on adolescent well-being?

3. What is the relationship between time spent on social media and perceived adolescent well-being?

Study Design

This is a descriptive, cross sectional study aimed at collecting data on student perceptions of the impact social media has on overall well-being. A descriptive study is a study that does not manipulate any variables (United States Department of Health and Human Services, n.d.). This study provides a framework to collect and analyze adolescent's already existing thoughts on the positive and negative impacts on defined

areas of well-being, in reference to five different social media platforms. Within this study, there is no intervention, manipulation of variables, or change in environment. A cross sectional study is aimed at collecting data at one point in time, with a single interaction with a group of people (United States Department of Health and Human Services, n.d.). Data collection will only happen one time per participant and consist of only the participant's present opinion on the impacts social media may have on well-being.

Theoretical Framework

The Theory of Reasoned Action and Planned Behavior is the theoretical framework used in this study. The Theory of Reasoned Action and Planned Behavior was created to explain why behaviors, that people can exert control over take place (LaMorte, 2018). There are six constructs in the Theory of Reasoned Action and Planned Behavior: attitude, behavioral intention, subjective norms, social norms, perceived power and perceived behavioral control (LaMorte, 2018). Only the first construct is measured in this study; analyzing the attitudes of adolescents toward different aspects of social media that affect their overall well-being.

A key factor in the Theory of Reasoned Action and Planned Behavior is understanding attitudes toward certain behaviors, if positive attitudes exist correlating behaviors are more likely to be present (LaMorte, 2018). Adolescents positive and negative attitudes toward four different social media platforms will be analyzed in this study. If adolescents perceive positive outcomes on well-being within certain social media platforms, the Theory of Reasoned Action and Planned Behavior predicts that

adolescents will be more likely to use those platforms. If negative attitudes toward well-being concepts exist within certain social media platforms, it is important to understand why adolescents are using those platforms. The goal of this study is to analyze adolescent attitudes toward the four most commonly used social media platforms in an effort to understand how each social media platform impacts well-being.

Participants

Participants within this study are male and female high school students aged 15 – 18 years old, residing in a rural county in Minnesota. The study is targeting high school students to gather information on perceived affects social media has on overall adolescent well-being. The sampling technique that will be used for this study is convenience sampling. Convenience sampling is "drawn by selecting any available participant from an intact group" (Cottrell & McKenzie, 2011, p. 133). Students enrolled in public high schools within the county of interest are conveniently available to participate in this study. The participants will be recruited from both mandatory and elective health and physical education classes they are currently taking. Each school district in the county varies in the grade levels (freshman, sophomore, junior or senior year) that students are required to take health and physical education classes. The type and number of elective classes in health and physical education offered also vary by school district.

Fifteen years old was selected as the lower age limit because most social media platforms require users to be at least 13 years of age to create a profile. Another reason is that for participants to provide a more accurate assessment on how social media impacts areas of well-being, participants need to be able to understand well-being terms used

within the survey questions. Experience with social media is also beneficial. The upper

age limit of 18 was selected because seniors in high school have the potential to be 18

years of age during the spring of their senior year.

Instrumentation

The Royal Society for Public Health (RSPH) describes a cross sectional survey,

entitled #StatusofMind, that was used to find out how adolescents in the United Kingdom

feel that Instagram, Facebook, Snapchat, Twitter and YouTube "impact their overall

health and well-being (both positively and negatively) and to make comparisons between

these platforms…" (Royal Society for Public Health, 2017, p. 17). The instrument used

in #StatusofMind will be the same instrument used in this proposed study. Similar to

#StatusofMind, this study is also aiming to compare adolescents perceived positive and

negative impacts on well-being of the top four social media platforms: Instagram,

Facebook, Snapchat, and YouTube.

The survey is an online instrument, comprised of 62 questions. The survey begins

with demographic information to determine the participants age, gender, perceived

importance of social media, most important social media platform, a self-reported

estimate of daily time spent on each social media platform and how they access their

social media accounts. The second portion of the survey goes on to ask 14 questions,

each relating to a concept of well-being. Each panel of 14 well-being statements is

assessed for each of the four social media platforms being measured. The participant is

asked to assess how each social media platform impacts the following 14 concepts:

awareness of other's health experiences, access to expert health information, emotional

support, depression, loneliness, sleep, self-expression, self-identity, body image, real world relationships, community building, bullying and FoMO. Participants are asked to rank each statement using a five-point Likert-type scale with the option to choose if that specific social media platform makes statements 1-14: -2 (A lot worse), -1 (a little worse), 0 (has no effect), +1 (a little better), +2 (a lot better). There are 14 questions for each of 4 social media platforms, equaling 56 statements measuring the perceived impacts of social media on well-being (Royal Society for Public Health, 2017).

The demographic portion of the survey will determine the age and gender of the participant, as well as importance of social media to the participant, methods by which social media is accessed, average time spent on social media platforms and participant's most preferred social media platform. The first two questions are nominal, demographic data asking students to select their age from the options of 15, 16, 17 or 18 years and selecting gender; asking participants to identify as male, female or unspecified. The survey then uses a five-point modified Likert-type scale to identify participant's perceived level of importance of social media using the options: Extremely Important, Important, Unsure, Unimportant or Extremely Unimportant. Time spent on social media platforms will be an open-ended question, asking participants to estimate the amount of time per day they spend on each platform. The last two demographic questions ask the participants to select from a list of options. Question four asks participants to identify their most important social media platform, having to choose between the four platforms being measured, and only being able to choose one. Facebook, Instagram, YouTube, or Snapchat are the options listed. Question five asks participants to identify one or more

way(s) they access their social media accounts, choosing among the following options: smartphone, tablet, iPad, desktop computer or laptop.

This survey draws on the Theory of Reasoned Action and Planned Behavior to help determine the first construct, attitudes toward performing a particular behavior. The questions that analyze social media's impact on well-being break down the concept of well-being into 14 specific statements. The use of the five-point Likert scale for each statement will identify potential attitudes toward specific areas of well-being that each social media platform may affect. Perceived positive measures could explain why adolescents are using these platforms and perceived negative measures could identify areas of concern regarding social media use and feelings of well-being.

Data Collection Procedure

Data collection happened in public school districts within Goodhue County, MN. Health and physical education teachers at the high school level were asked to take 10 minutes of time to have students complete the online survey, using the online survey tool Qualtrics. Permission was granted at the district level by the superintendent or principals and classroom teachers. Parents received a letter home asking for signed consent to allow their student to participate in a study analyzing the positive and negative impacts of social media platforms on adolescent well-being. Signed, informed consent was collected a minimum of two days before the scheduled start of the survey.

Before starting the survey, it was explained to the students that they were going to be participating in a study designed to gather their opinions on the whether different social media platforms make different areas of well-being much better, a little better,

have no effect, a little worse, or a lot worse. It was also be explained that student

participants would be analyzing the four most commonly used social media sites:

Facebook, Instagram, YouTube, and Snapchat. Students were read the assent aloud by

the classroom teacher.

Currently, there are approximately 2,746 fifteen to eighteen-year-old students

registered in public high schools, grades 9-12, within Goodhue County. Using Krejcie

and Morgan's (1970) table for determining sample size from a given population,

approximately 338 participants would be needed for an appropriate sample size.

Approximately 535 parental consent forms were sent home in duplicate form with

students. A total of 342 parental consent forms were signed, returned to school and

collected by the student researcher for a final total of 339 online surveys voluntarily

started. Eight students declined to take part in the survey resulting in 330 completed

online surveys.

Data Analysis

Statistical Package for the Social Sciences (SPSS) (IBM, 2017) was used to

analyze data. SPSS generated means, standard deviations, modes, and percentages on

demographic data collected; repeated measures ANOVA was used to analyze correlations

between social media platforms and composite well-being; and a Spearman rho

correlation was used to analyze time spent on social media and composite well-being

scores for each social media platform.

Of the 339 online surveys started, eight declined assent and 45 surveys contained

missing data. Surveys that were missing more than 5% of their data were removed from

analysis. A total of 40 surveys were deleted for missing data. Surveys missing less than

5% were replaced with the most appropriate measure of central tendency, the mean. This

was used in 5 surveys to replace a total of 8 data points.

Table 1

Table of Specifications

Research Question	Survey Items	Level of Data	Analysis
1. Which social media platform has the highest perceived positive impact on adolescent well-being?	Facebook: Survey questions 7-20 (mean of each question and mean of total platform) Instagram: Survey questions 21 - 34 (mean of each question and mean of total platform) Snapchat: Survey questions 35 - 48 (mean of each question and mean of total platform) YouTube: Survey questions 49 - 62 (mean of each question and mean of total platform)	Interval/Ratio (individual survey items) Interval/Ratio (total median scores)	Descriptive Statistics including central measures of tendency and measures of dispersion. Repeated measures ANOVA
2. Which social media platform has highest perceived negative impact on adolescent well-being?	Facebook: Survey questions 7-20 (mean of each question and mean of total platform) Instagram: Survey questions 21 - 34 (mean of each question and mean of total platform) Snapchat: Survey questions 35 - 48 (mean of each question and mean of total platform) YouTube: Survey questions 49 - 62 (mean of each question and mean of total platform)	Interval/Ratio (individual survey items)	Descriptive Statistics including measures of central tendency and measures of dispersion. Repeated measures ANOVA
What is the relationship between time	Question 5: Please estimate the amount of time per day you spend	Ordinal Data	Descriptive Statistics including

| spent on social media and perceived adolescent well-being? | on each of the following Social Media platforms: YouTube, Facebook, Instagram, Snapchat. Facebook: Survey questions 7-20 (mean of each question and mean of total platform) Instagram: Survey questions 21 - 34 (mean of each question and mean of total platform) Snapchat: Survey questions 35 - 48 (mean of each question and mean of total platform) YouTube: Survey questions 49 - 62 (mean of each question and mean of total platform) | Interval/Ratio (individual survey items) | measures of central tendency and measures of dispersion. Spearman Rho Correlation, post hoc tests to determine significance. |

Summary

Participants selected, using convenience sampling, from public high schools in a single Minnesota county completed a 62-question survey that attempted to measure the perceived positive and negative correlations to well-being that different social media platforms have. The study design is based on the Theory of Reasoned Action and Planned Behavior and will help identify the first construct of attitude concerning social media use. Any significant differences in well-being concepts, positive or negative, among the different social media platforms measured will be exposed after using ANOVA analysis.

Chapter IV: Findings and Discussion

Introduction

This study collected data with the purpose of comparing the positive and negative impacts of the top 4 social media platforms used by adolescents in Goodhue County, MN on well-being. This study aimed to answer the following research questions.

1. Which social media platform has the highest perceived positive impact on adolescent well-being?

2. Which social media platform has highest perceived negative impact on adolescent well-being?

3. What is the relationship between time spent on social media and perceived adolescent well-being?

Data for this research study was collected in the form of an online survey. Statistical Package for Social Sciences (SPSS) (IBM, 2017) was used to analyze descriptive statistics, frequency distributions, measures of central tendency, comparisons and correlations. This chapter discusses the findings from the survey, organized in alignment with the research questions.

Demographic Results

The findings include data from four public high schools within Goodhue County, Minnesota. The demographic data of the research participants are represented in Table 1. Demographic data collected included age, gender, how social media is primarily accessed, the overall importance of social media in their lives, which social media platform they believe to be the most important, and to estimate the amount of time, in

hours, they spend on each social media site. The average age of those surveyed was 15.9

(SD = 1.12) while the majority of the population surveyed were female (n = 163, 56%).

A smartphone was indicated to be the favorite way of accessing social media,

with only twelve of the two hundred ninety-one respondents indicating another electronic

device being used for primary access. Snapchat was viewed as the most important social

media platform by 60.5% (n = 176) and 74.2% of respondents found social media to be

moderately to extremely important in their lives (n = 216) in their lives. Table 1 presents

a breakdown of the other demographic data.

Demographics of Participants

Age	n	%
15.00	137	47.1%
16.00	79	27.1%
17.00	25	8.6%
18.00	50	17.2%

Gender		
Male	125	43.0%
Female	163	56.0%
Unspecified	3	1.0%

Most Important Social Media Platform		
Facebook	4	1.4%
Instagram	41	14.1%
Snapchat	176	60.5%
YouTube	70	24.1%

Primary Access to Social Media		
iPad	4	1.4%
Smartphone	279	95.9%
Tablet	1	.3%

laptop	3	1.0%
desktop computer	2	.7%
other	2	.7%
Importance of Social Media		
Extremely Important	13	4.5%
Very Important	51	17.5%
Moderately Important	152	52.2%
Slightly Important	65	22.3%
Not at all important	10	3.4%

Survey participants were asked to report a daily average time spent, in hours, on each social media platform. The largest amount of reported time spent on social media was on Snapchat, with a mean of 140 minutes a day (SD = 132.43). Students reported spending an average of 17.94 minutes a day on Facebook (SD = 38.15), 78.78 minutes a day on Instagram (SD = 77.08), and 102.44 minutes a day on YouTube (SD = 114.79). The largest ranges in time spent were within the social media platforms YouTube and Instagram, with students reporting between zero and seven hundred twenty minutes (12 hours) a day. Time spent online was grouped in 30 minute segments for analysis and the majority of students estimated being on Facebook between 0 and 30 minutes a day (n = 243, 83.5%), Instagram between 0-60 minutes per day (n = 192, 66.0%), Snapchat between 0-120 minutes per day (n = 184, 63.2%), and on YouTube between 0-60 minutes per day (n = 165, 56.7%).

Research Question One: Which social media platform has the highest perceived positive impact on adolescent well-being?

Participants were asked to consider how Facebook, Instagram, Snapchat and YouTube affected 14 areas of well-being. Students were asked to rank each statement of well-being on a scale from -2 to 2. A score of -2 was given if the social media platform made that area of well-being "*a lot worse*", -1 if it made well-being "*a little worse*", 0 if it made well-being "*neither worse nor better*", 1 if it made well-being "*a little better*", and a score of 2 was given if it made well-being "*a lot better*".

A composite score for each social media platform was created and Cronbach's alpha was run to measure the reliability of the data. A score of > .7 is necessary to consider data reliable. Cronbach's alpha scores for Facebook, Instagram, Snapchat and YouTube are all at .8, indicating the data is reliable.

Table 3 represents the composite mean scores and standard deviations for the four social media platforms measured. The assumption of sphericity was violated and corrected for by using the Greenhouse-Geisser output. A repeated measures ANOVA revealed a statistically significant difference in overall well-being scores between the four social media platforms ($F_{2.33, 674.7474} = 38.81$, $p < .001$). YouTube has the highest mean score, 1.09 (n = 291, SD = 7.16) or was the most positively associated with overall well-being. YouTube is also the only platform that scored a positive mean when compared to the other three social media platforms, that all scored negatively. This result indicates that YouTube may have the most positive impact on well-being. See Table 3 for mean comparisons on Facebook, Instagram and Snapchat.

Table 3

Composite well-being scores

Descriptive Statistics

	Mean	Std. Deviation	N
total well-being score Facebook	-1.2185	5.90425	291
total well-being score Instagram	-2.9029	7.91742	291
total well-being score Snapchat	-1.9329	8.27430	291
total well-being score YouTube	1.0887	7.15785	291

Post hoc tests using the Bonferroni correction revealed significant differences between Facebook (M = -1.22, SD = 5.90) and YouTube (M = 1.09, SD = 7.16); Instagram (M = -2.90, SD = 7.92) and YouTube; and Snapchat (M = -1.93, SD = 8.27) and YouTube. YouTube was perceived as being an average of 2.31 well-being rank points higher than Facebook (p < .001), 4.0 well-being rank points higher than Instagram (p <.001), and 3.02 well-being rank points higher than Snapchat (p < .001), thereby having the most positive impact on overall well-being.

Research Question Two: Which social media platform has highest perceived negative impact on adolescent well-being?

Composite data from research question one was also used to answer research question two. Table 3, above, represents the composite mean scores and standard deviations for the four social media platforms measured. Instagram had the lowest mean well-being composite score, -2.90 (n = 291, SD = 7.91) or was perceived as having the largest negative impact on well-being. See Table 3 for mean comparisons on Facebook, Instagram, Snapchat and YouTube.

Similar to question one, the assumption of sphericity was violated and corrected for by using the Greenhouse-Geisser output. A repeated measures ANOVA revealed a statistically significant difference in overall well-being scores between the four social media platforms ($F_{2.33, 674.7474} = 38.81$, $p < .001$).

The Bonferroni adjustment detected significant relationships between Instagram (m = -2.90, SD = 7.9)) and Facebook (m = -1.22, SD = 5.90), Instagram and Snapchat (m = -1.93, SD = 8.28) and Instagram and YouTube (m = 1.09, SD = 7.16). Instagram was shown to have a more negative impact on well-being at a significant level. Instagram was -1.68 well-being rank points lower than Facebook ($p < .001$), -.97 well-being rank points lower than Snapchat ($p = .002$) and -4.0 well-being rank points lower than YouTube ($p < .001$), thereby having the most negative impact on well-being.

Research Question Three: What is the relationship between time spent on social media and perceived adolescent well-being?

Survey participants were asked to estimate the amount of time they spend on each of the four social media platforms per day, in hours. Time in hours was converted to minutes due to the number of students that cited social media time under one hour (Facebook, n = 244; Instagram, n = 77; Snapchat, n = 68; YouTube, n = 100). Data was determined to be non-parametric. Time spent on social media contains outliers, plots for time on Facebook, Instagram, Snapchat and YouTube do not follow a normal bell curve, and show a slight linear pattern using a scatter plot graph. Estimated times in each platform were compared to the platform's composite well-being score using a non-parametric test of correlation, Spearman rho. Facebook (r (289) = -.014, p = .40),

Instagram (r (289) = .056, p = .17), and Snapchat (r (289) = .051, p = .19) showed no

significant relationship between time spent online and perceived well-being. Time spent

on YouTube and perceived well-being showed a weak, positive, significant correlation (r

(289) = .237, p < .001). All correlations were found to be significantly weak.

Summary

The purpose of this study was to identify which social media platform, Facebook,

Instagram, Snapchat, or YouTube had the most positive impact on adolescent well-being

and which platform had the most negative impact on adolescent well-being. This study

also aimed to examine whether time spent on social media had a relationship with overall

well-being. Participants were asked to rank 14 well-being statements in relation to four

different social media platforms, deciding how each platform impacted that area of well-

being.

Surveyed adolescents reported that social media was extremely to moderately

important to them (n = 216, 74.2%) and their most important platform was Snapchat (n =

176, 60.5%). The majority of adolescents, 95%, are accessing their social media through

their smartphones. Respondents perceived YouTube has having the most positive impact

on their well-being (M = 1.089, SD = 7.16) and Instagram as having the most negative

impact on well-being (M = -2.90, SD = 7.92).

After reviewing time spent online, there was no significant relationship between

time spent on social media and social media platforms Facebook, Instagram or Snapchat.

YouTube did show a significant, positive, weak correlation (r (289) = .237, p < .001),

meaning that time spent on YouTube positively correlated with a positive well-being

score.

Chapter V: Summary, Conclusions, and Recommendations

Discussion

Social media use is a common activity among the majority of adolescents, with the average teenager citing use of four different platforms (Murphy, Olson, & Miller-Regan, 2018). With 92% of adolescents citing daily use of at least four different social media platforms for an average of 3.2 hours per day it is important to understand how it's use can impact overall well-being (Smith, Anderson & Caiazza, 2018; Strickland, 2014). This study aimed at looking at the most used social media platforms (Facebook, Instagram, Snapchat and YouTube) and comparing their overall impact on perceived well-being in adolescents. This study also attempted to determine a relationship between time spent online and perceptions of well-being.

The findings of this research are consistent with the findings of other studies that have researched social media and well-being. Anderson and Jiang (2018) found that Snapchat was adolescents most important social media platform. This study identified the same result, with 60.5% stating that Snapchat was their most important social media platform. Also consistent with research done by Anderson and Jiang (2018), 95% of the students in this study accessed their social media platforms via smartphones. Average daily time spent online was similar to findings by Strickland (2017) who stated that the average American teen spent an approximately 3.8 hours a day on social media. This study netted similar results finding an average of 4.5 hours a day spent online, spread over four different social media platforms.

A study done by the Royal Society for Public Health (RSPH) (2017), also found that Instagram had the most negative overall impact on adolescent well-being while YouTube had the most positive overall impact on well-being. RSPH's within well-being concept analysis was also similar, finding that usage of YouTube most improved well-being areas like access to health information you can trust, loneliness, depression, anxiety, fear of missing out and body image while Instagram had the most negative impact on the same areas. Unlike previous research, this study indicated that Instagram had the most positive impact on self-expression and self-identity.

This study found that time spent on Facebook, Instagram, and Snapchat did not have a significant relationship to perceptions of well-being, which is not consistent with research that indicates that time spent online has a negative relationship to well-being, specifically well-being concepts related to mental health. Previous research indicates that time online positively correlates with the number of depressive symptoms and reported anxiety levels (Lin et al., 2016; Twenge et al., 2017; Woods, 216). Twenge et al. (2017) cites a positive correlation between more than two hours online per day and increased suicidal risk factors. This study had no significant correlations between time online and depression, time online and anxiety, time online and loneliness, and time online and FoMO. Time on YouTube had a weak, positive correlation to positive perceptions of well-being that was statistically significant. YouTube and Snapchat also had weak, negative correlations to sleep, showing that increased use of these platforms led to decreased sleep.

The aim of this study was to attempt to answer the first construct in the Theory of Reasoned Action and Planned Behavior, attitude toward performing a particular behavior. Adolescent's positive attitudes towards how social media impacts their well-being indicates that they may use it to help them form communities, create a sense of self-identity, express themselves, gain access to health information they believe they can trust and maintain and form real world relationships. This aids us in understanding why the majority of adolescents cite using social media platforms like Snapchat and YouTube, or the attitudes that drive use. This study confirms the first construct; if positive attitudes exist, or adolescents perceive positive benefits of a behavior, that behavior is more likely to follow. Overall the most positive impact on well-being was demonstrated in the social media platform, YouTube. YouTube also demonstrated a weak correlation to a more positive sense of well-being. Negative perceptions of social media, also defined in this study, help identify areas of concern regarding social media and future areas of research specifically in the areas related to mental health like depression, anxiety, loneliness, sleep, bullying, body-image and FoMO.

One area of interest identified in data cleaning comes from the surveys that were removed from the study during data cleaning. Out of the 45 surveys that had missing data, 23 were missing data specifically related to depression, loneliness, anxiety, bullying, body-image, sleep and FoMO, with respondents not answering any of the questions related to those topics, on any of the social media platforms. While we cannot say for sure that this 51% of missing data was missed accidentally or skipped on purpose,

it does identify a potential area of interest, especially when identifying problem areas and the attitudes that are driving use of social media.

Recommendations for Practice

Twenge et al. (2017) discusses that time online is rapidly replacing some of our other day to day activities including reading, participating in non-sedentary activities, and conversing with people face-to-face, all protective factors against mental illness. Anderson and Jiang (2018) indicate that smartphone ownership has doubled since 2015. Current concerning research on social media and adolescents highlights the negative impacts on mental health, cyberbullying, digital distraction, negative body-image and self-esteem, as well as sleep. Twenge et al. (2019) cites that the adolescents experiencing major depression within the past 12 months has grown 52% since 2008, corresponding to the rise in smartphone ownership, digital communication, and the decline in sleep duration.

Understanding adolescents perceived impacts of social media helps parents and educators in understanding the drive toward adolescent use while grasping the importance of social media monitoring and education for all. Parent influence and social media modeling is cited as being a major influence over adolescent's social media behavior (Burnette et al., 2018). Lewis et al. (2015) discovered that parents who consider their children more competent in technology and more informed about social media tend to feel their authority over their child is compromised. Parents discussed feeling family routines were disrupted and events chaotic due to a child's online activity (Lewis et al.,

2015). Parents cited they desired more information on strategies to help them manage their parent/child relationship in a digital world, including monitoring strategies.

The Parent Internet Mediation Guidelines (Livingstone, Mascheroni & Staksrud, 2015) outline the need for education of parents, educators and children on social media and online activity. Common Sense Media, START, and New York's Department of Education have created resources to fit this framework and need. All identify the need to educate within the community as well as within the homes. New York's Department of Education outlines resources on their webpage for student and parent social media guidelines in two categories, for those with children twelve and under and for those with children over age thirteen. Within these resources are talking points, learning activities and monitoring suggestions. Common Sense Media promotes parent and child learning together, outlining the Learn, Do, Reflect model for both in school curriculum and lessons to be run through various community groups for adults and kids together. START offers an opportunity for parents to come together and offer support and advice for limiting and monitoring technology use within their own communities, promoting community wide social media monitoring, specifically within the area of usage time. All programs aim at understanding and outlining boundaries for social media use, appropriate use of social media as well as coping strategies for both adults and children.

One example of a specific lesson within the classroom to identify social media stress could be to have students pull out their phones the beginning of the hour, turn on all notifications, and keep their phone out on their desk. As the lesson on chronic stress, aligned with the national health standards and mental health benchmarks, progresses

students make tally marks to note each notification they receive. Instruct them to interact with their phones as they would if they were outside of class. Toward the end of the hour have them take their notification tallies and create a comprehensive total on the board. Discuss the number of notifications they got and how social media could create stress in their lives, making sure to talk about students who maybe did not receive many, or any, notifications and how that could also cause a stressful response. Ask students if they were able to focus on the stress lesson and talk about the distraction caused by constant connection. Discuss how constant access could be causing stress and distraction from other important things or people in their lives. Finish by brainstorming and considering ways to monitor social media use to reduce stress.

Recommendations for Future Research

A rise in the understanding of digital distraction has led several colleges and high schools to remove personal technology from the classroom, a few going as far as limiting all classroom use of technology (Berdik, 2018). A study by Beland and Murphy (2015) found the removal of personal devices in the classroom led to a significant increase in test scores and information retention for lower-achieving learners, however there was no significant result for high-achieving learners. The study found that students were less likely to be distracted during a lesson and more likely to engage in the lesson when phones were removed (Beland & Murphy, 2015). These findings, along with the current study's findings, that teens need to check their phones twenty-four hours a day, create an opportunity for further research into the relationship between academic achievement and access to social media within the school day.

Another area focus could be the lack of research on Snapchat, and its impact on well-being. Snapchat is cited as the most important social media application and used by the majority of students who responded to this survey. Extended research into use of filters and their impact on body image and self-esteem when compared to filtered images that are identified as "edited" could be helpful when comparing the impacts on perceived body image and self-esteem

Hamm et al. (2015) reported that young adults are more likely to use passive strategies in response to cyberbullying like blocking, defriending and ignoring. A platform specific qualitative study on cyberbullying and Snapchat could help identify student coping strategies when feeling bullied or targeted and how well they feel these strategies work.

Conclusions

As social media use continues to increase and become an everyday form of communication, there is a need to continue research. There is a solid base of research on visual platforms like Facebook and Instagram and how they affect areas of well-being, particularly depression, anxiety and cyberbullying. Research is lacking on those platforms teens cite using most and consider most important, like Snapchat. It is important as educators to understand why adolescents are using these platforms and what benefits they see from their use. Students have access to more information and people than ever before. Education needs to continue to help students learn to use social media intelligently. Social media can help create and extend relationships with people who can teach and support adolescents. Adolescents need to be able to identify valid and reliable

information versus biased opinion, how to use social media to extend relationships, without depending on it, and how to monitor use so it is a tool to aid communication and learning.

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Appendices

Appendix A
Institutional Review Board Letter of Approval

MINNESOTA STATE
UNIVERSITY
M A N K A T O

March 28, 2019

Dear Marge Murray-Davis:

Re: IRB Proposal   entitled "[1382021-5] Social Media: Positive and negative effects on adolescent well-being in Goodhue County, MN."
Review Level: Level *[II]*

Your IRB Proposal has been approved as of March 28, 2019. On behalf of the Minnesota State University, Mankato IRB, we wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study (see https://grad.mnsu.edu/irb/revision.html). Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the Associate Vice-President of Research and Dean of Graduate Studies immediately.

When you complete your data collection or should you discontinue your study, you must submit a Closure request (see https://grad.mnsu.edu/irb/closure.html). All documents related to this research must be stored for a minimum of three years following the date on your Closure request. Please include your IRBNet ID number with any correspondence with the IRB.

The Principal Investigator (PI) is responsible for maintaining signed consent forms in a secure location at MSU for 3 years following the submission of a Closure request. If the PI leaves MSU before the end of the 3-year timeline, he/she is responsible for following "Consent Form Maintenance" procedures posted online (see http://grad.mnsu.edu/irb/storingconsentforms.pdf).

Cordially,

Bonnie Berg, Ph.D.
Co-Chair

Jeffrey Buchanan, Ph.D.
IRB Co-Chair

Mary Hadley, Ph.D.
IRB Coordinator

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Minnesota State University, Mankato IRB's records.

Generated on IRBNet

Appendix B
Permission to use survey tool

FW: #StatusofMind

NM

Niamh McDade <NMcDade@rsph.org.uk>

Reply |

Wed 1/16, 5:17 AM

Kennedy, Katie M

You forwarded this message on 1/16/2019 11:43 AM

Hi Katie,

Thanks for your interest and we are happy for you to use the same survey tool in a smaller scale study in Minnesota.

Best wishes,
Niamh

Niamh McDade
Senior Campaigns & Communications Executive
Royal Society for Public Health
John Snow House
59 Mansell Street
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www.rsph.org.uk

Appendix C
Parental Consent form

Introduction to research on affects of social media on adolescent well-being.

      My name is Katie Kennedy and I am a graduate student at Minnesota State University, Mankato. I would like to ask your son or daughter some questions about how they think different social media platforms affect them. The goal of this research is to understand their perspective of how beneficial or harmful Facebook, Instagram, Snapchat and YouTube can be to 14 areas of well-being. This survey should take them approximately 10 minutes to complete. If you have any questions about the survey please contact the primary researcher, Dr. Marge Murray-Davis at 507-389-2709 or at marge.murray-davis@mnsu.edu.

For the purpose of this study, well-being is defined as having positive emotions and moods, the absence of negative emotions (such as depression and anxiety), feeling satisfied with life situations, and feeling healthy and having enough energy for activities.

The 14 areas of well-being to be researched will be defined for students as:

Awareness and understanding of other people's health experiences.
Access to expert health information they know they can trust.
Emotional support (empathy and compassion from family and friends).
Anxiety (feelings of worry, nervousness or unease).
Depression (feeling extremely low, irritable and/or unhappy).
Loneliness (feelings of being all on your own).
Sleep (quality and amount of sleep).
Self-expression (the expression of your feelings, thoughts or ideas)/
Self-identity (ability to define who you are).
Body image (how you feel about how you look).
Real world relationships (maintaining relationships with other people).
Community building (feeling part of a community of like-minded people).
Bullying (threatening or abusive behavior toward you or being involved or pulled into drama).
FoMO (fear of missing out: feeling you need to stay connected because you are worried things could be happening without you).

Students will be asked to rank each item on a 5 point scale, deciding if each social media platform makes each wellness area a lot worse (-2), a little worse (-1), has not effect (0), a little better (+1) or a lot better (+2).

PARENT CONSENT FORM

Please print CLEARLY

Name of parent or guardian: _____

I am the legal guardian of_____(child's name). I consent for her or him to participate in a research project on children's experiences related to social media. I understand that Dr. Marge Murray-Davis, Ph.D. from the Health Science Department at Minnesota State University, Mankato (MSU) is director of the project. I understand that participation in this study is voluntary and includes the following commitment for my child and me:

1) Read and sign this consent form. Please return this form to school by **Monday, April 8th, 2019**.

2) My child will be asked to complete an online survey about his or her thoughts on how four different social media platforms (Facebook, Instagram, Snapchat and YouTube) affect 14 areas of well-being. The survey takes about 10 minutes.

Procedures

With parental consent, my child will be directed to the online survey through their Schoology account, which will be provided by the school. Their account will only be used to deliver a link with access to the survey, it will not be recorded by the online survey tool, Qualtrics. They will first be presented with an introduction to the survey, similar to the introduction above. They will also have the opportunity to agree to participate in the study. If they agree, they will be asked basic demographic questions including age, gender, importance of social media, social media platforms used, average time spent on social media platforms and ways they access their social media accounts. They will then be asked questions about their perception of how Facebook, Instagram, YouTube or Snapchat affect their well-being.

If you have any questions about the study you may contact the student researcher, Katie Kennedy at 507-226-1126 or at katie.kennedy-1@mnsu.edu about any concerns you have about this project. If you have any questions about participants' rights and for research-related injuries, please contact the Administrator of the Institutional Review Board at (507) 389-1242.

Confidentiality

All information obtained in this project will be kept confidential by the staff of this research project. All information will be stored in a locked file cabinet at Minnesota State University, Mankato or on a password protected computer. It can be viewed only by authorized research staff members including Dr. Marge Murray-Davis, Dr. Joseph Visker, Dr. Emily Forsyth and Katie Kennedy. No information about any child will be released and no names will be recorded other than on the consent forms. The

surveys are anonymous and do not require any self-identifying information other than age and gender. If you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

Risks and Benefits

The risks of participating in this study are no more than those in normal daily life. You can request a copy of the study's results (but not your child's results), which would be mailed to you after the end of the study. While there are no direct benefits to participating in this study, your student's answers may help the researchers better understand social media's effect on adolescent well-being.

Right to Refuse Participation

Participation in this project is voluntary and you and your child have the right to stop participation at any time. If you change your mind and would no longer like your child to be part of the research, contact me at the e-mail address or phone number given above before **April 9th, 2019**. Your child can choose to skip any questions she or he does not want to answer. Your child can stop participating by saying she or he does not want to be in the study anymore and simply closing their web browser. Your decision whether or not to participate will not affect your relationship with Minnesota State University, Mankato, and refusal to participate will involve no penalty or loss of benefits.

Your signature indicates that you are at least 18 years of age and have received a copy of the consent form to keep. If you agree to participation please sign and return one copy and keep the other for your records.

Please print your name: _____

Signed: _____

Date: _____

MSU IRBnet ID#: 1382021

Date of MSU IRB approval: 3/28/19

Appendix D
Student Assent

Student Assent

My name is Katie Kennedy and I am a graduate student at Minnesota State University, Mankato. You are being invited to participate in a research project that is going to ask you some questions about how you think different social media platforms affect you.

The goal of this research is to understand your view of how beneficial or harmful Facebook, Instagram, Snapchat and YouTube can be to areas of well-being. There are no wrong answers, and this is not a test. No personal data will be collected, so no one will know how you answered each question. Your survey answers will be stored on a password protected computer. You will also not receive anything for answering these questions. This survey should take approximately 10 minutes to complete.

There are no direct benefits of participating in this study. If you are unhappy about how you or other students have been treated in this research, please contact your teacher, parent(s), or the student researcher, Katie Kennedy at katie.kennedy-1@mnsu.edu. The risks of participating in this study are no more than experienced in daily life, but if this survey leaves you feeling upset or uncomfortable please talk to your counselor, teacher or parents.

Your parents have given permission for you to participate in this study. You do not have to participate in this research. You may stop participation at any time by simply closing your browser.
Your parents will not be told if you choose not to participate or stop participation.

A paper copy of this assent form is available upon request from your teacher.

Clicking "YES" below indicates that you are willing to participate in the study and will take you to the survey questions.

Clicking "NO" below indicates that you are not willing to participate in the study and will take you to an alternative activity where no data will be collected.

- Yes, I will take part in this study
- ○ No thank you, I would not like to participate in this study

MSU IRBNet ID# 1382021

Date of MSU IRB approval: 3/28/2019

Appendix E
Survey Instrument

1 How old are you?

○ 15 (1)

○ 16 (2)

○ 17 (3)

○ 18 (4)

Q2 What is your gender?

○ Male (1)

○ Female (2)

○ Unspecified (3)

Q3 How important is social media to you?

○ Extremely important (1)

○ Very important (2)

○ Moderately important (3)

○ Slightly important (4)

○ Not at all important (5)

Q4 Approximately how many hours a day do you think you spend on each social media platform?

○ Facebook (1) _____

○ Instagram (2) _____

○ Snapchat (3) _____

○ YouTube (4) _____

Q5 The most important social media platform to me is:

○ Facebook (1)

○ Instagram (2)

○ Snapchat (3)

○ YouTube (4)

Q6 Primary way that I access my social media accounts.
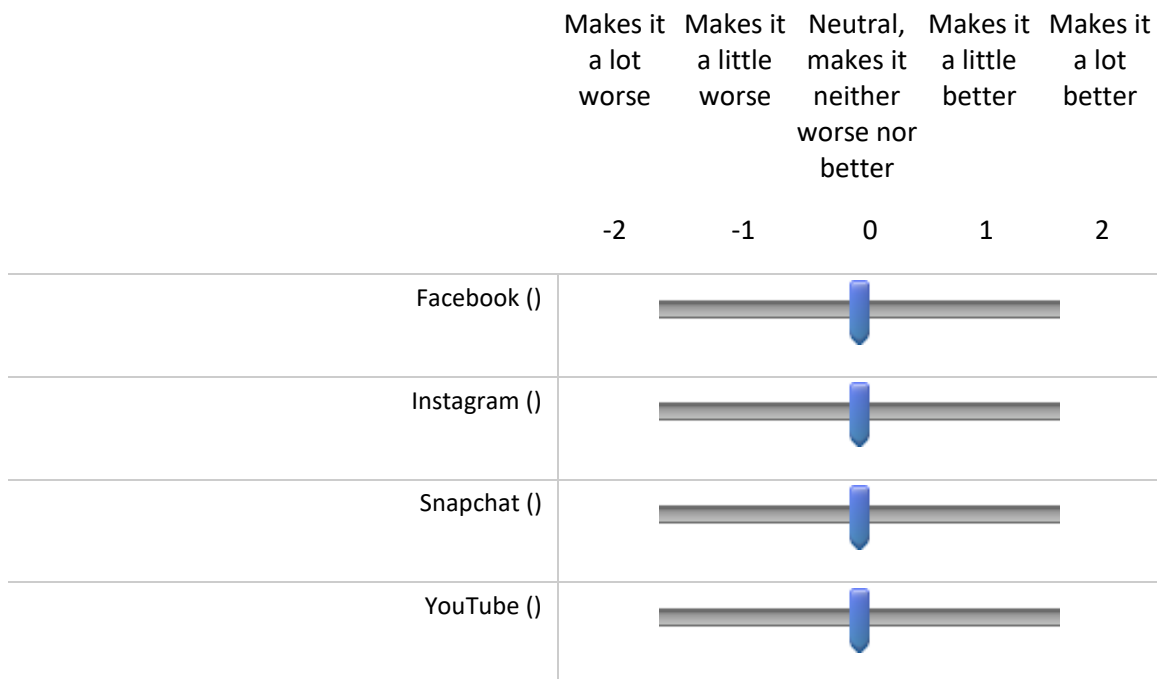
○ iPad (1)

○ Smartphone (2)

○ Tablet (3)

○ Laptop (4)

○ Desktop Computer (5)

○ Other (6)

End of Block: Demographic Information

Start of Block: Consider how each social media site affects the following areas of well-being.
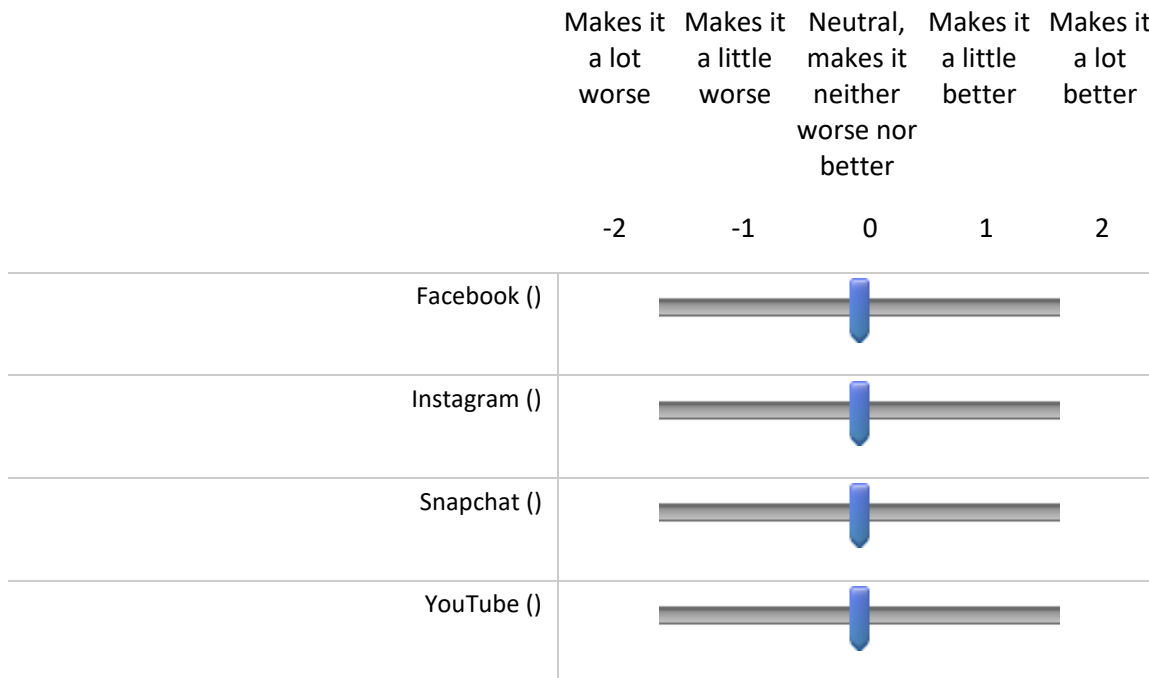
1 Awareness and understanding of other people's health experiences.
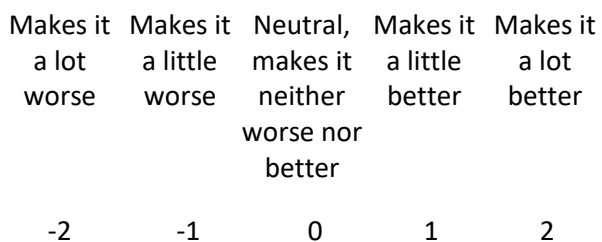Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					

2 Access to health information you know you can trust.

Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()			●		
Instagram ()			●		
Snapchat ()			●		
YouTube ()			●		

3 Emotional support (empathy and compassion from family and friends).

Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2

Facebook ()	
Instagram ()	
Snapchat ()	
YouTube ()	
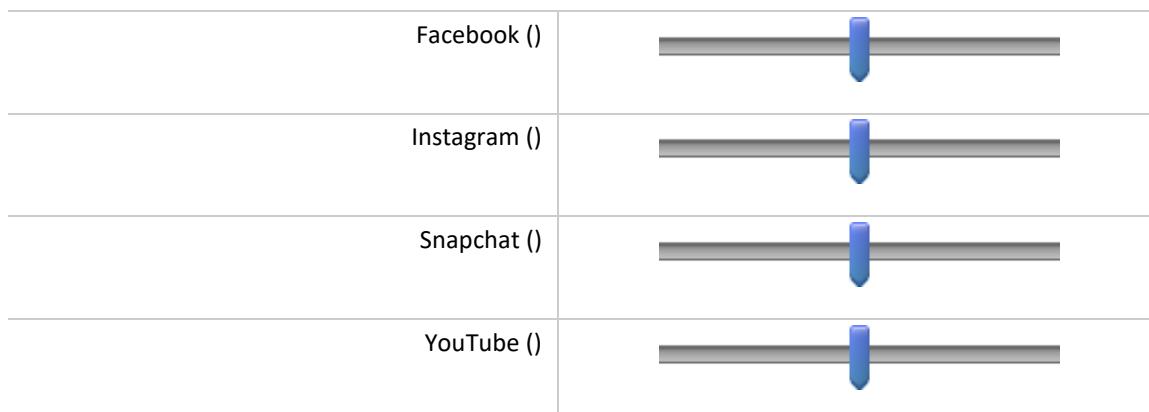
4 Anxiety (feelings of worry, nervousness or unease).

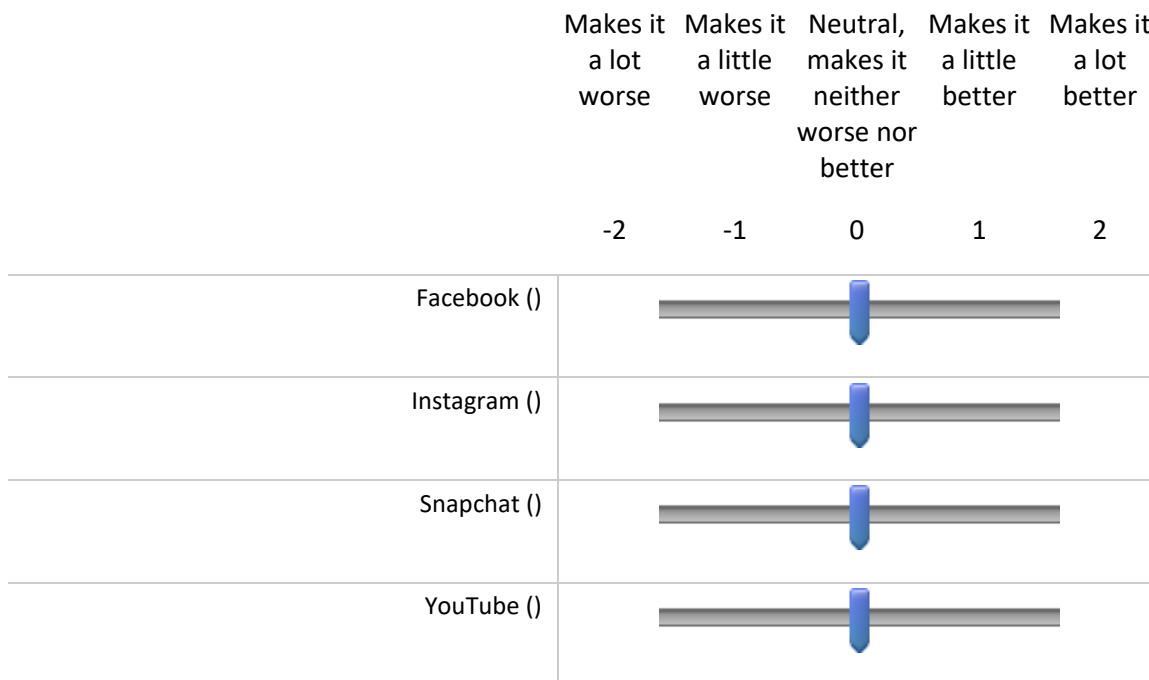Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

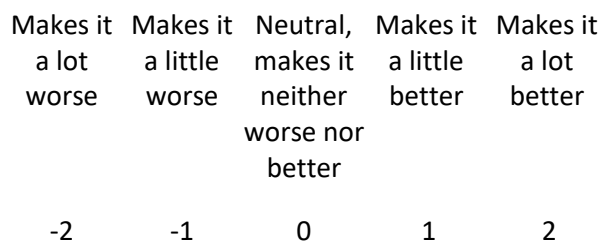|	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					
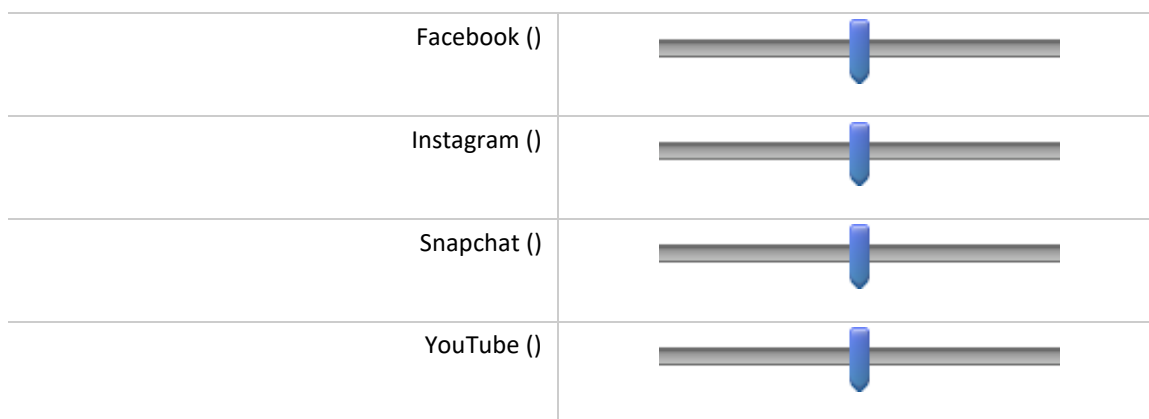
5 Depression (feeling extremely low, irritable and/or unhappy).

Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					

6 Lonliness (feelings of being all on your own).

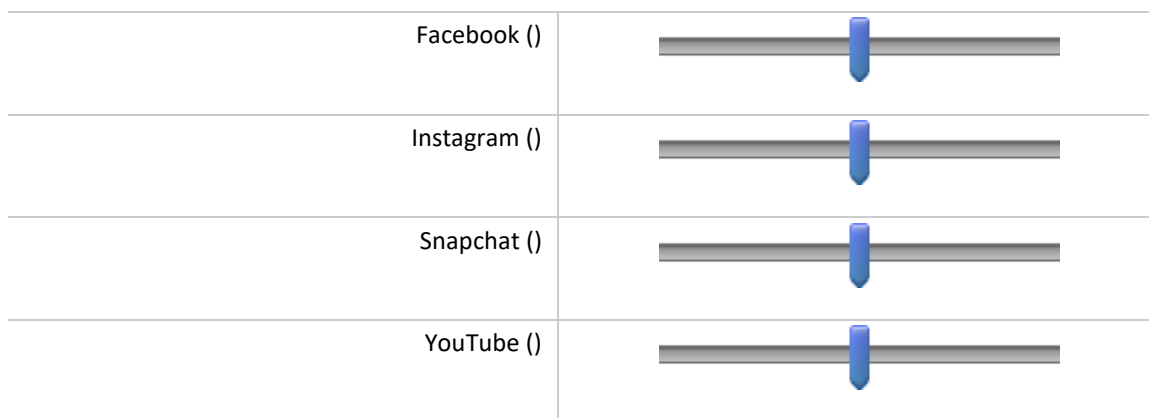Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

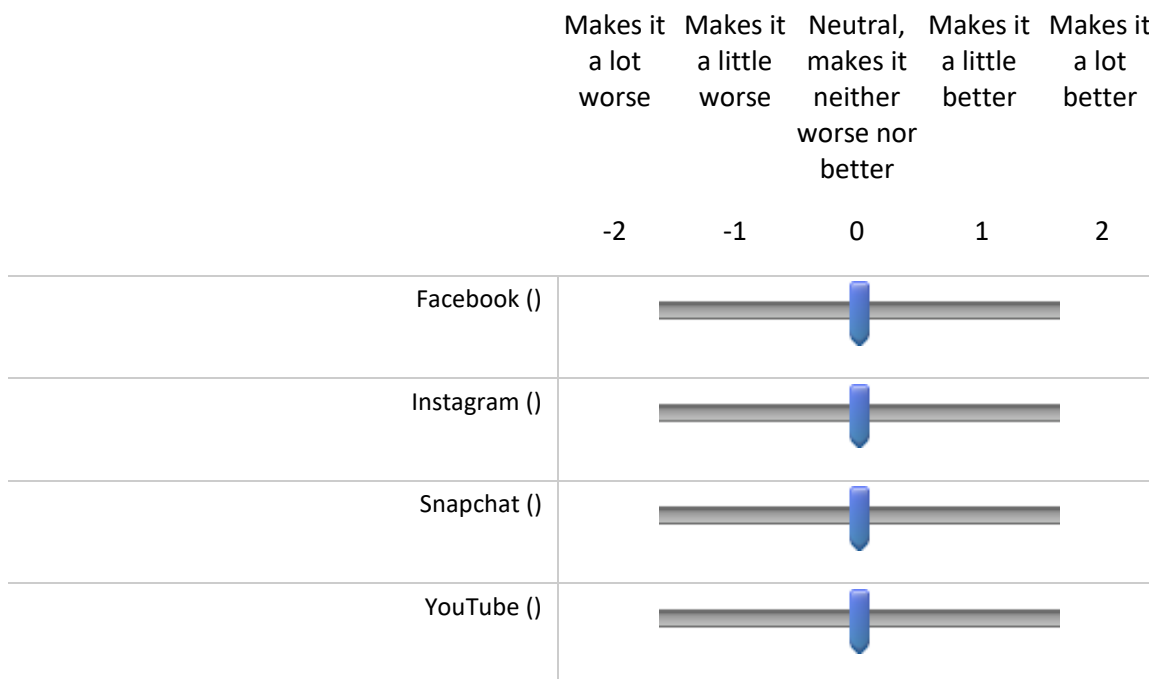|	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2

Facebook ()	
Instagram ()	
Snapchat ()	
YouTube ()	
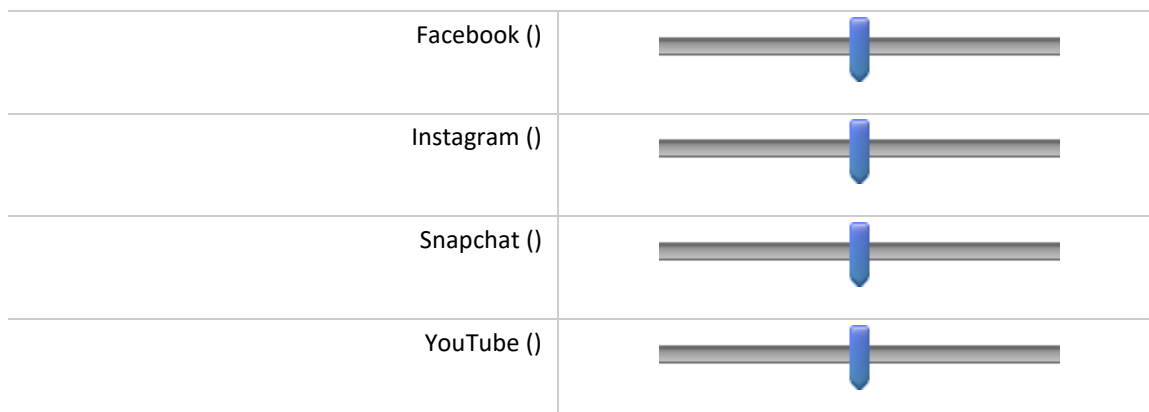
7 Sleep (quality and amount of sleep).

Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

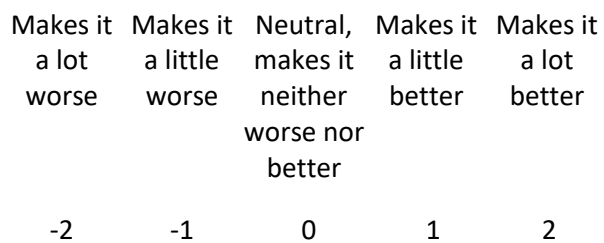|	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					

8 Self-expression (the expression of your feelings, thoughts or ideas).
Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					

9 Self-identity (ability to define who you are).
Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

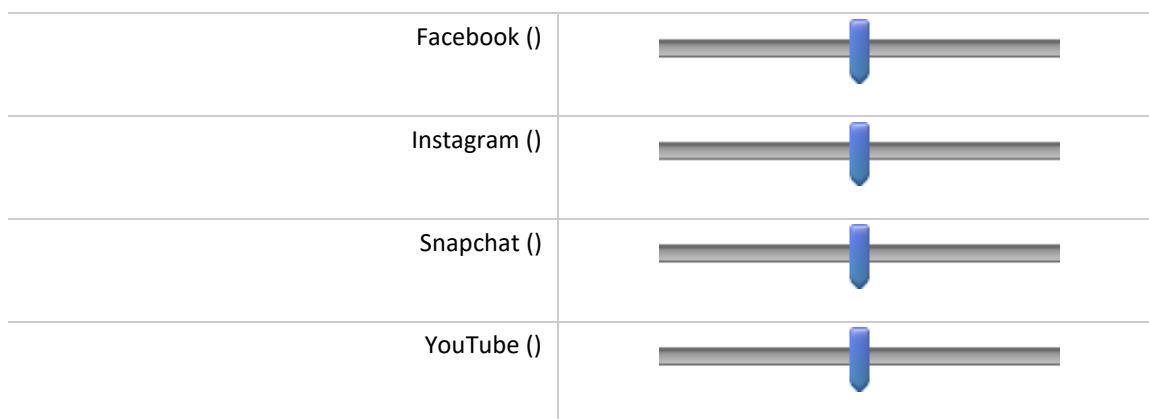|	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2

Facebook ()	
Instagram ()	
Snapchat ()	
YouTube ()	
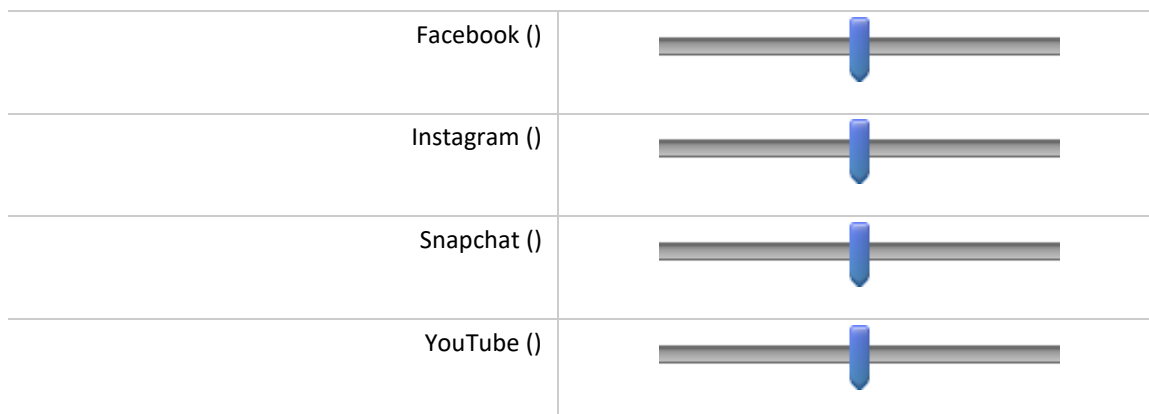
10 Body image (how you feel about how you look).

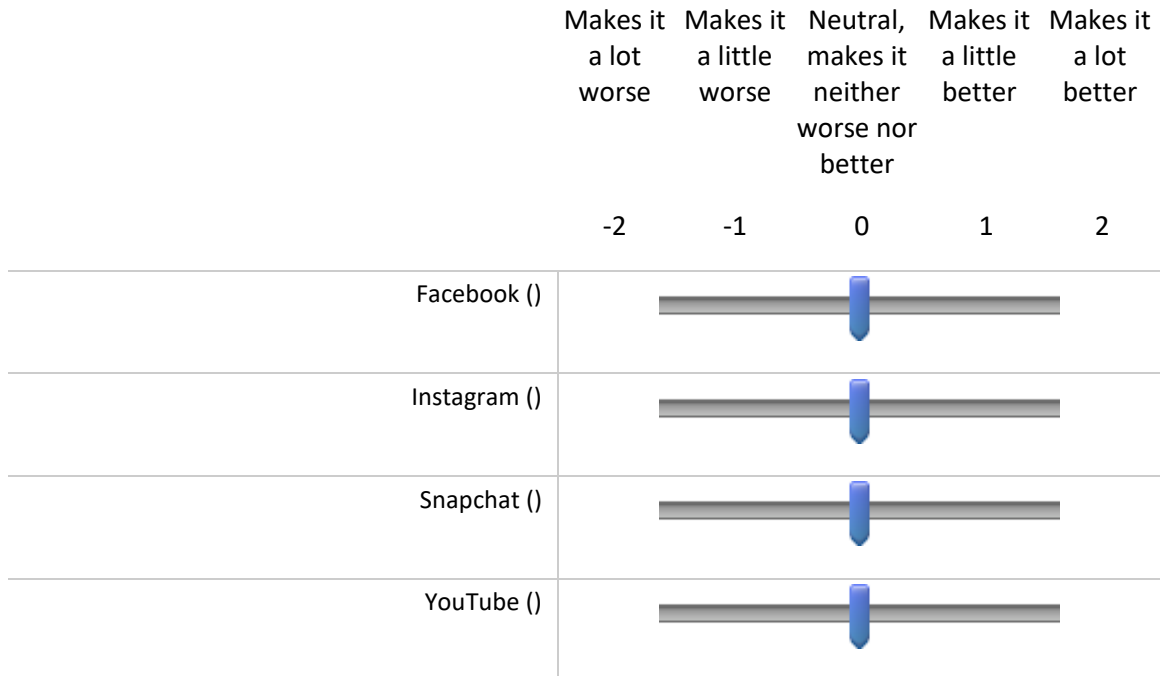Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

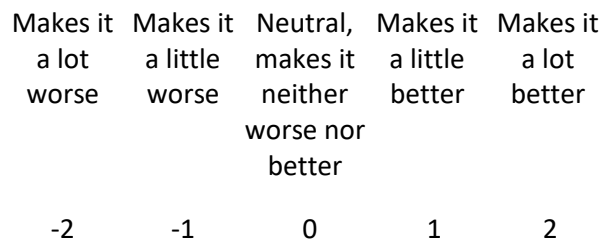|	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					

11 Real world relationships (maintaining relationships with other people).

Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					

12 Community building (feeling part of a community of like-minded people).

Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2

|	
Facebook ()	
Instagram ()	
Snapchat ()	
YouTube ()	
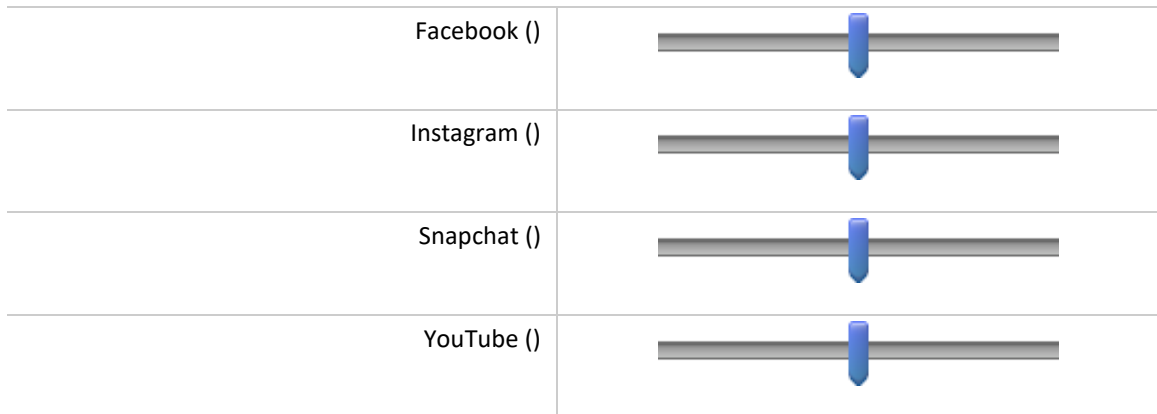
13 Bullying (threatening or abusive behavior toward you, being involved or pulled into drama). Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()					
Instagram ()					
Snapchat ()					
YouTube ()					
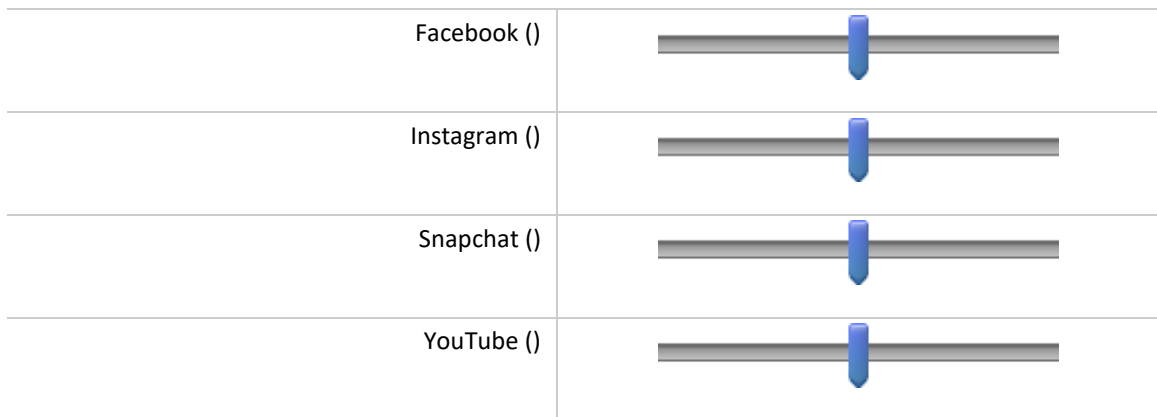
14 FoMO (Fear of missing out - feeling you need to stay connected because you are worried things could be happening without you).
Slide the bar to where you feel it fits each social media site best on a scale from -2 to +2.

	Makes it a lot worse	Makes it a little worse	Neutral, makes it neither worse nor better	Makes it a little better	Makes it a lot better
	-2	-1	0	1	2
Facebook ()			●		
Instagram ()			●		
Snapchat ()			●		
YouTube ()			●		
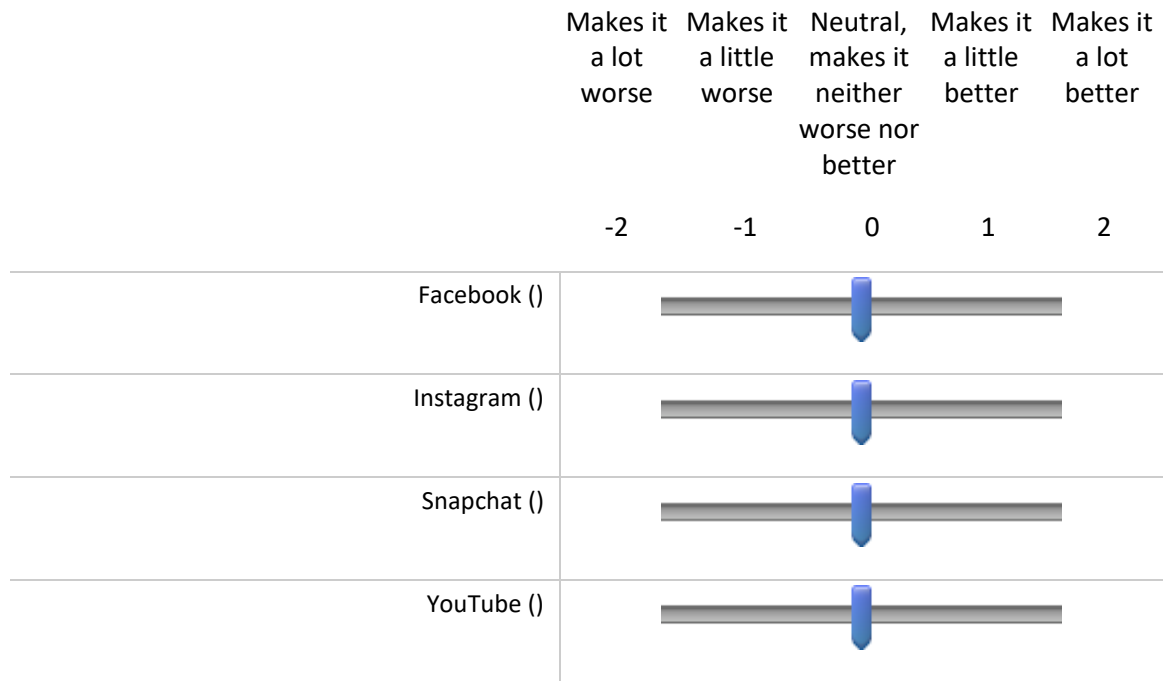
End of Block: Consider how each social media site affects the following areas of well-being.

Appendix F

Literature Review Matrix

APA	Findings related to FOMO	Methods/issues
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental* health of young adults. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015	FOMO can translate into a dangerous comparison - exposure can lead to comparing own life, harmful effects. Those who use FB and instagram more reported lower levels of happiness and higher indications they perceive life as not being fair. FOMO makes it hard to step away and disconnect, keeps others from sleeping, relaxing and being content with current situation. Rosen found that younger generation checks SM very often, maybe as often as every 15 minutes - show an increase in anxiety levels when they cannot check.	Thesis project - qualitative explanation explaining the relationship between social media and mental health of young adults. Review of existing literature. "understanding SM and the risks/benefits to overall health/well-being so they can be self-aware and monitor.
Shafer, L. (2017, December). *Social media and teen anxiety.* Retrieved from https://www.gse.harvard.edu/news/uk/17/12/social-media-and-teen-anxiety	Teens are feeling replaceable. Too much communication or if you are not up to date on online information you are out of touch with what is going on at school the next day.	Review of current studies on anxiety and social media. Specifically causes of anxiety within SM – secondary source
Berdik, C. (2018, January 22). *Dealing with digital distraction.* Retrieved from https://hechingerreport.org/dealing-digital-distraction/	FOMO is a term originated at Harvard business school to describe graduate school students' social text driven lives.	Summary of research done at Dominguez Hills, Cal State. Qualitative observation and in person interviews. Article on.
Oberst, U., Wegmann, E., Stodt, B., Brand, M.s & Chamarro, A. (2017, February). Consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *Journal of Adolescence, 55*, 51-60. https://doi.org/10.1016/j.adolescence.2016.12.008	Definition of FOMO: Fear of missing out (FOMO) is described as "(…) a pervasive apprehension that others might be having rewarding experiences from which one is absent (…)" and "(…) a desire to stay continually connected with what others are doing" . Fear of missing out mediates the link between SM use and depressive symptoms and anxiety. intensity make cases of FOMO and depressive symptoms worse. FOMO can	online questionnaire, ones with missing answers thrown out. Average person used 3.5 SNS. Reliability/validity discussed. Data reliability done in different languages. Genders tested differently because there were a lot

	be designated in rumination of use in a cyclical pattern	more females than males in the study.
Przbylski, A. K., Murayama, K., DeHaan, C.R. & Gladwell, V. (2013, July). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior, 29,*1841-1848. https://doi.org/10.1016/j.chb.2013.02.014	Definition: pervasive apprehension that others might be having rewarding experiences from which one is absent, characterized by the desire to stay continually connected with what others are doing. Study 1: Created a list of 10 items to define and measure FoMO. Study 2: Findings: younger (esp. men) had higher levels of FOMO (negative correlation). FOMO is robustly linked to social media engagement, esp. in those with low satisfaction. FOMO created a cyclical pattern of use. - specifically FB engagement. Study 3 showed less life satisfaction = higher levels of FoMO."	3 studies/surveys taken at 3 times and linked together. Each sample had a different target population, and different population. Participants measured FOMO, mood, life satisfaction and SM use time.
Beyens, I., Frison, E. & Eggermont, S. (2016, November). "I don't wanna miss a thing:" Adolescents fear of missing out and its relationship to adolescents' social needs, Facebook use, and Facebook related stress. *Computers in Human Behavior, 64,* 1-8. *h*ttps://doi.org/10.1016/j.chb.2016.05.083	Def: "a pervasive apprehension that others might be having rewarding experiences from which one is absent" On FB, 1 in 4 indicated that not being on FB was stressful to extremely stressful; and 1 in 10 reported that not feeling belonging to peers on FB was stressful/extremely stressful. strong positive relationships were found between adolescents' need for popularity, need to belong, fear of missing out, Facebook use, perceived stress due to not being popular on Facebook, and perceived stress due to not belonging on Facebook. Need to belong/need for popularity decreased with age. FoMO is a mediating factor - cyclical pattern	Cross sectional survey, pen and paper, approx. 400 surveys. Need to belong scale and popularity scale - in Belgium. Fear of missing out scale - listed above, Facebook user scale. Controlled for age and gender

Utz, S., Tanis, M. & Vermeulen, I. (2016, January 12). It is all about being popular: the effects of need for popularity on social network site use. *Cyberpsychology, Behavior and Social Networking, 15*(1), 37-42. https://doi.org/10.1089/cyber.2010.0651	Personality characteristics can predict SNS use and SNS behaviors. Need for popularity predicted other behaviors like grooming, strategic self-presentation, profile enhancement and disclosure of feelings. NFP positively related to vanity, entitlement and narcissism - negative connotation traits - neg. related to self-esteem.	Online survey, 250 Dutch, ave. age 23. Measured grooming, strategic self-presentation, profile enhancement, disclosure of feelings, routine SNS use, number of friends, need to belong, self-esteem, entitlement, vanity, Need for popularity
Fox, J. & Moreland, J. J. (2015, April). The dark side of social networking sites: An exploration of the relational and psychological stressors associated with Facebook use and affordances. *Computers in Human Behavior, 45*, 168 -176. https://doi.org/10.1016/j.chb.2014.11.083	feelings of over connection and work with social media - checking is a job...people get mad if you miss a birthday or commenting on a post or not reposting something they deemed important.	focus groups, college men and women - homogeneous groups were maintained.
APA	**Findings related to Health information**	**Methods/issues**
Wartella, E., Rideout, V., Montague, H., Beaudoin-Ryan, L. & Lauricella, A. (2016, June 16). Teens, health and technology: A national survey. *Media and Communication 2016 4*(3), 13-23. https://doi.org/10.17645/mac.v4i3.515	Results found that 84% of teens are finding health info online. 1/4 get a lot of info online, 36% get some online. Majority at 55% still get most of information from parents. The 1/4 that get a lot online also cited they get a lot of information from doc/nurses. 38% look online a few times a year - so not using it often. 33% get a lot to some of their information on health from social media sites - although older, female teens with good health were more likely to use SNS. 29% of teens have a mobile phone health app, mostly involving fitness and nutrition. 47% of them hardly use it. 91% have never had a trackable device. Most teens google searched health	Survey of 1156 youth. Used GfK base, activity levels and BMI were solicited. A Likert scale on where health info comes from was used.

	issues, although 1 in 5 report getting health information from YouTube, fb and twitter.	
Hogan, M. & Strasburger, V. (2018, April 12). Social media and new technology: A primer. Clinical Pediatrics, 57(10), 1204-1215. https://doi.org/10.1177/0009922 818769424	pos. of social media includes gaming for education, texting services, GPS location for prevention and STD information/birth control. Web based education programs	Review of studies and information known on SM and effects - both pos and neg. Includes author bias on studies/methodology with including studies.
Hausmann, J., Touloumtzis, C., White, M., Colbert, J., & Gooding, H. (2017, June). Adolescent and young adult use of social media for health and its implications. Journal of Adolescent Health, 60(6), 714-719. https://doi.org/10.1016/j.jadohe alth.2016.12.025	½ respondents posted about health – those with poor health more likely. Common reasons cited: seeking advice, looking for support, searching for treatment options (13%). Majority discussed ability to txt health provider. ¼ view SM as a source of useful health info, not the same as previous studies.	200 surveys from hospital patients. Cross sectional. Mostly female based participants willing. Questioned on how they used SM for health information and if they thought it was useful.
Ahmed, N., Quinn, S., Hancock, G., Freimuth, V., & Jamison, A. (2018, November 29).Social media use and influenza vaccine uptake among White and African American adults. Vaccine, 36(49), 7556 – 7561. https://doi.org/10.1016/j.vaccin e.2018.10.049	FB and Twitter used most as sources of health information and users of these were significantly more likely to get the flu vaccine. Also cited they did not believe SM was an influence in health decisions. Finding: Vaccine info on SM may increase vaccine uptake.	Cross sectional study. Respondents are users of social media. Health insurance information was collected and factored out.

Zhao Y. & Zhang, J. (2017). Consumer health information seeking in social media: a literature review. Health Information and Libraries Journal, 34, 268-283. https://doi.org/10.1111/hir.12192	Diabetes and mental health two most cited health uses of SM. Users age 18-30 most likely to use SM. Sought emotional and social support. Those that used cited use because others did and still demonstrated low levels of trust in SM – cited as unreliable.	Review of research. Over 200 studies read – based on survey, participant feedback.
APA	Findings related to General SM use	Methods/issues
Asano, E. (2017, January 4). How much time do people spend on social media? Retrieved from https://www.socialmediatoday.com/marketing/how-much-time-do-people-spend-social-media-infographic	YouTube: 40 min/day, FB 35 min/day, snap/insta 25/day, twitter d1 min. Kids spent up to 9 hours a day on social media platforms. 60% of that is on a mobile device. The average person will spend nearly 2 hours/day on SM every day.	Secondary Source. Could be biased the source is social media today, based on personal data.
Ben-Joseph, E.P. (2018, April). Teaching kids to be smart about social media. Retrieved from https://kidshealth.org/en/parents/social-media-smarts.html	contract on guidelines for media use. What sites/apps, friend them and observe, set a good example and keep devices in public areas.	Gov't website - based on recommendations for parents and education.
Luna, K. (2018, August 10). *Dealing with Digital Distraction*. Retrieved from https://www.apa.org/news/press/releases/2018/08/digital-distraction.aspx	Modern tech taking away moments we have in person. Survey/observation done, those with phones on the table felt less enjoyment, less connectedness, more boredom and distraction and more phone use during dinner compared to those who put their tech away. When asked to report on what they were doing, those who had not just used cell phones had more enjoyment and less interest in phone.	Secondary Source on findings of survey/observation done.

APA	Findings on effects of SM on self Esteem	Methodology/issues
Twenge, J., Joiner, T., Rogers, M., & Martin, G. (2017, November 14). Increases in depressive symptoms, suicide related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science, 6*(1), 3-17. https://doi.org/10.1177/2167702617723376	In the mid 2010s the average 12th grader spent 6 hours a day online: 2/texting, 2/internet including gaming and 2/on SM. 10th graders at 5 hours and 8th graders at 4. 2008 about 27% visited SM less than one time a week and in 2016 8%. Displacement with reading of books, magazines, newspapers and viewing TV decreasing. 32% of 12th gr reported reading a book/magazine daily in 2008 with 16% in 2016. 12th graders report spending just under 8 hrs/day on a screen/not including work/school	Used existing surveys from MtF. Traces data back to 1970s. Data relied on self-reporting.
Berdik, C. (2018, January 22). *Dealing with digital distraction.* Retrieved from https://hechingerreport.org/dealing-digital-distraction/	Threat of digital distraction and what/how constant alerts and phone checks register in our brain. had 3 hours/40 min of use/day and in 2017 had 4 hours/22 min use. In study students who had phones on desk but face down and silent performed worse on tests of attention and cognitive processing than those with phones in backpacks. Largest difference seen in those who reported high levels of attachment to phones. Attention span of teens is about 6 min on 1 task. Domingus hills. The more students reported multitasking the lower their grades tended to be.	Observations, surveys of college aged students. Ave stat from Domingus Hills study by Larry Rosen over 2 years of tracking is 2016 -
Tamir, D. & Mitchell, J. (2012, May 7). Disclosing information about the self is intrinsically rewarding. Proceedings of National Academy of Sciences of the United States of America, 109(21), 8038-8043. https://doi.org/10.1073/pnas.1202129109	In studies brain imaging shows that the reward areas of the brain are more active when answering questions about self or disclosing information about self. Preference on answering questions about self-increased when participant knew another person would hear the story/information.	Brain imaging studies. 5 studies done over an extensive time period, different methods used to isolate what part of the brain responds to self-disclosure. Used monetary rewards and other rewards to prompt responses.
APA	**Findings on effects of SM on self Esteem**	**Methodology/issues**

Steers, M.N., Wickham, R.E., & Acitelli, L.K. (2014). Seeing everyone else's highlight reels: How Facebook usage is linked to depressive symptoms. Journal of Social and Clinical Psychology, 33(8), 701-731. https://doi.org/10.1521/jscp.2014.33.8.701	upward comparison is seeing self as inferior to others (increase in depressive symptoms and decrease in self-esteem.) Downward comparison is seeing oneself as better off or superior (increase in self-esteem and decrease in anxiety. Neg. health outcomes are associated with FB may not be applicable to the platform, but how people use it. The act of freq. comparing self to others is long term destructive than direction of comparison (up or down). Perceived control of situation or life, dissatisfaction with life or self-esteem can predict a positive or negative affect following a comparison.	14 day diary, counted on personal thoughts/analysis
Shapiro, L.A. & Margolin, G. (2014, March). Growing up wired: Social networking sites and adolescent psychosocial development. Clinical Child and Family Psychological Review, 17(1), 1-18. https://doi.org/10.1007/s10567-013-0135-1	Review of studies noted the ability of people to use SM as a means of self-expression. SM used as a mapping tool to find LGBTQ youth who are demonstrating a risk for suicide, then provide targeted intervention. positive association of those who have more positive offline relationships tend to have more positive online relationships. Pos. assoc. between positive view of SNS and sense of social connectivity on SNS.	Review of studies, surveys and interviews. 2006 studies to present included. Individual survey's based on participant response.
Chassiakos, Y.R., Radesky, J., Christakis, D., Moreno M.A., & Cross, C. (2016, November). Children and adolescents and digital media. Pediatrics, 138(5). 10.1542/peds.2016-2593	teens are using social media for collaboration, increased awareness of current events, promoting community participation and civic engagement, to learn about marginalized/join marginalized groups and promote healthier overall behaviors by learning about them and following health experts.	Review of lots of areas of social media. Comprehensive, lots of studies but did not discuss how studies were selected or measurement tools used.

Burrow, A. L. & Rainone, N. (2017, March). How many likes did I get? Purpose moderates link between positive social media feedback and self-esteem. Journal of Experimental Social Psychology, 69, 232-236. https://doi.org/10.1016/j.jesp.2016.09.005	Those who have lower levels of purpose of life to begin with also had high self-esteem with more likes and lower self-esteem with less likes. A protective factor to this was those that had a high purpose of life score to begin with. Adolescents who view a photo that has a high number of likes demonstrated activity of the reward processing system in the brain - stimulating them to try to achieve that.	Self-reports and fake Facebook acct. created. Life purpose measured first, then exposed to likes on a fake account. Measured self-esteem after exposure and average number of likes told to a person.
Wright, E., White, K. M., & Obst, P. L. (2018, January). Facebook false self-presentation behaviors and negative mental health. *Cyberpsychology Behavior and Social Networking*, *21*(1), 40-49. https://doi.org/10.1089/cyber.2016.0647	Users on FB an ave. of 14 hours/week but passively using and liking -- the more liking behaviors a person had the more likely it was they were going to present a false sense of self. This false presentation increased anxiety over time, increased anxiety correlated with an increase in lying and liking behavior - but false liking. Depression symptoms and stress levels correlating positively with an increase in false liking	Goal of study was establish an inventory of false self-presentation behaviors on FB and examine the relationship between them and mental health measures of well-being. 211 FB users age 18-29 with ave. of 487 friends. Correlational study
Wright, E., White, K. M., & Obst, P. L. (2018, January). Facebook false self-presentation behaviors and negative mental health. *Cyberpsychology Behavior and Social Networking*, *21*(1), 40-49. https://doi.org/10.1089/cyber.2016.0647	Liking behaviors signif. Correlated with lying behaviors in online activity. Most FB users real self-differed somewhat from online self. 7.5% differed sig. as measured and the less authentic a person was the more negative effects of SM they presented. False Liking behaviors that are performed are more associated with detrimental health than lying behaviors (exaggerating a post). False presentation of self-became significant when self-esteem was factored in (decrease in self-esteem when an increase in false liking happened). The younger users presented more false presentation behavior.	Goal of study was establishing an inventory of false self-presentation behaviors on FB and examine the relationship between them and mental health measures of well-being. 211 FB users age 18-29 with ave. of 487 friends. Correlational study
Walsh, B. (2017, September). *Insta-Ready*. Retrieved from https://www.gse.harvard.edu/news/uk/17/09/insta	Teens self-reported negative comparisons between selves and feed reported feeling worse after browsing regardless of emotions before browsing. Extent to which teens	Secondary Source based on Emily Weinstein's research on SM and teens

	compare selves to feeds determine kids' reactions, but they differ on how they react to posts based on information and differ in use, experience and respond.	
Fox, J. & Moreland, J. J. (2015, April). The dark side of social networking sites: An exploration of the relational and psychological stressors associated with Facebook use and affordances. *Computers in Human Behavior, 45*, 168 -176. https://doi.org/10.1016/j.chb.2014.11.083	For participants who started Facebook as an adolescent, the first basis of comparison (and competition) was the number of friends one had on the network: a quantifiable popularity contest.	focus groups, college men and women - homogeneous groups were maintained.
Tiggemann, M. & Slater, A. (2013, May 25). NetGirls: The Internet, Facebook and body-image concern in adolescent girls. International Journal of Eating Disorders 46(6), 630-633. https://doi.org/10.1002/eat.22141	Body image: Internet exposure associated with internalization of thin ideal…body surveillance and drive for thinness. FB users scored sig. high on all indicators of body image concern than nonusers. Myspace/FB correlated with higher internalization of thin ideal/body sur. and drive for thin	personal opinion and survey. Self-reported levels of internet use and body image concerns
Marengo, D., Longobardi, C., Fabris, M.A. & Settanni, M. (2018, May). Highly-visual social media and internalizing symptoms in adolescence: The mediating role of body image concerns. Computers in Human Behavior, 82, 63-69. https://doi.org/10.1016/j.chb.2018.01.003	Time spent on highly visual social media pos. correlated with internalizing symptoms and body image concerns. Body image concerns predicted internalizing symptoms. Was same results for all age groups - females more likely than males.	Cross sectional design - not longitudinal data. Only relatable to Italian adolescents - not generalizable as a whole

Burnette, B., Kwitowski, M. & Mazzeo, S. (2017, December). "I don't need people to tell me I'm pretty on social media:" A qualitative study of social media and body image in early adolescent girls. Body Image, 23, 114-125. https://doi.org/10.1016/j.bodyim.2017.09.001	photo based platforms are key contributors to body image comparisons and concerns - but are mitigated by parent involvement and school lessons on self-confidence/self-appreciation and media literacy. Noted that when discussing celeb profiles they understood they were touched up, with friends showed an appreciation of qualities - noted that they didn't think friends at other schools had same thoughts.	Discussion focus groups I n7/8th grade girls. All upper middle class private school kids who note in interviews that they don't have the same social media view as their peers.
Cohen, R., Newton-John, T., & Slater, A. (2017, December). The relationship between Facebook and Instagram appearance-focused activities and body image concerns in young women. Body Image, 23, 183-187. https://doi.org/10.1016/j.bodyim.2017.10.002	Following fitness and health accounts as well as celebrity accts. pos. correlated with thin-ideal internalization. Total time online not assoc. with thin ideal. Instagram users scored higher on body surveillance scores than FB, driven by photo-based platform? Same correlations not found on following non personal accounts like travel based.	Specific to FB and Insta - recruited through FB. Correlational results, cross sectional survey
de Vries, D., Peter, J., de Graaf, H., & Nikken, P. (2016, January). Adolescents' social network site use, peer appearance-related feedback, and body dissatisfaction: Testing a mediation model. Journal of Youth and Adolescence, 45(1), 211-224.	Social media use (high level) at time 1 predicted higher levels of body dissatisfaction in both males and females as well as predicted an increased level of peer appearance feedback. High levels of peer appearance FB and high levels of body dissatisfaction DID NOT predict SM use at time 2. Freq. of peer feedback at time 1 did not predict lower body disats. at time 2	Predict a directional causation of social media use and body dissatisfaction and appearance related peer feedback. Measured at 2 points - longitudinal. Measured time spent on SM, Body dissatisfaction scale and peer appearance related feedback.
Holland, G. & Tiggemann, M. (2016, June). A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. Body Image, 17, 100-110.	Across 20 studies correlations (sig) exist between social media use and body dissatisfaction, for both genders. More specifically photo based sharing (posting lots of images) and negative feedback on posts pos. correlated with disordered eating and body disat. Liking/posting as well	20 studies evaluated in final analysis. Mostly cross-sectional studies - but 5 were longitudinal - most early research focused on FB.

https://doi.org/10.1016/j.bodyim.2016.02.008		
McLean, S., Wertheim, E., Masters, J. & Paxton, S. (2017, March 28). A pilot evaluation of social media literacy intervention to reduce risk factors for eating disorders. Eating Disorders, 50(7), 847-851. https://doi.org/10.1002/eat.22708	small to medium effect sizes but showed significant improvement in body image and disordered eating.	experimental study. 3 50 min class periods for social media literacy and aimed to understand the manipulation of images and targeted social media. Control group went to regular classes. Participants measured body esteem and disordered eating.
APA	**Findings on the Pros of SM**	**Methodology/issues**
Dickins, M., Browning, C., Feldman, S. & Thomas, S. (2016, January 22). Social inclusion and the Fatosphere: the role of an online weblogging community in fostering social inclusion. Sociology of Health and Illness, 38(5), 797-811. https://doi.org/10.1111/1467-9566.12397	All described feeling excluded in real life aspects - talked about, pics taken of them, talked about by industries that were supposed to "help", but not talked to. They were prejudiced against and dehumanized. Online able to form a community for social, intellectual, emotional and tangible support. Tangible = advice, emotional/social = share experiences. Ended in changing mindset about real life examples and how to handle feeling excluded - empowered in real life and provided coping.	already survey participants were members of blogging sites, prone to online activity and potentially outgoing individuals. Nonrandom study done

Pornsakulvanich, V. (2017, November). Personality, attitudes, social influences and social networking site usage predicting online social support. Computers in Human Behavior, 76, 255-262. https://doi.org/10.1016/j.chb.2017.07.021	SM provides emotional support; most frequently reported type of support was emotional support. People tend to use the SM platforms that have the most choices in seeking or receiving support (use of likes, wows, sad emojis and comments). Overall personal attitude can predict how we react to media. Attitude toward SM, social influence and how often SM is used affect if SM was used for support or not. All in all a positive attitude toward SM in the beginning predicted satisfaction with online support and looking for support online.	survey - personal reports. Rely on personal memory and opinion. If run through SM sites, data naturally biased.
Moreau, E. (2018, September). Hottest social app trends for teens: Teens stay connected with these popular apps. [Blog Post]. Retrieved from https://www.lifewire.com/hottest-social-app-trends -for-teens-3485940	Teens are using twitter for reader friends access to news and up to date information on the world around them.	Review based off Pew Internet survey data as well as author knowledge on different apps. Teen focus group data on why they use apps involved in analysis. Biased on personal thoughts involved in answers.
Frison, E. & Eggermondt, S. (2017, October). Browsing, posting and liking on Instagram: The reciprocal relationships between different types of Instagram use and adolescent mood swings. *Cyberpsychology Behavior and Social Networking, 20*(10), 603-609. https://doi.org/10.1089/cyber.2017.0156	Increase social support perceptions, increase relational closeness, increase in social capital.	Longitudinal study that measured instagram use on a Likert scale and Depression scale for children was given. Pen/paper questionnaire. Time 1 and Time 2 were 9 months apart. Other factors involved in Depressed feelings?

Shafer, L. (2017, December). *Social media and teen anxiety*. Retrieved from https://www.gse.harvard.edu/news/uk/17/12/social-media-and-teen-anxiety	SNS can foster identity development and self-disclosure opportunities. Kids can be in control of what others see. Those who struggle with in real life relationships also tend to struggle with online relationships. Can create social outlets for those who have a hard time with social awkwardness (eye contact, tone). SM has a rich get richer theme - those with high self-esteem tend to benefit more from relationships online and have more relationships.	Secondary source, based on analysis of articles noting the risking number of teens with anxiety and summarizing studies that demonstrate correlation but not causation to anxiety
Ben-Joseph, E.P. (2018, April). Teaching kids to be smart about social media. Retrieved from https://kidshealth.org/en/parents/social-media-smarts.html	stay connected with fam/friends. Communicate with educators and fellow students, volunteer or get involved with a campaign/nonprofit or charity, enhance creativity by sharing ideas, music and art. Meet/interact with those who share interests	Gov't website - based on recommendations for parents and education.
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults. Retrieved from* http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015	Greater social connection may foster a sense of coherence and meaning or purpose in life. It enhances mental health and happiness - all appear in SN. Social support can ward off hopelessness, quell loneliness, discourage avoidant coping and reinforce positive state of minds, emotional support	Thesis project - qualitative explanation explaining the relationship between social media and mental health of young adults. Review of existing literature. "understanding SM and the risks/benefits to overall health/well-being so they can be self-aware and monitor.
Wong, C. A., Merchant, R. M. & Morenoc, M. A. (2014, December). Using social media to engage adolescents and young adults with their health. Healthcare, 2(4), 220-224. https://doi.org/10.1016/j.hjdsi.2014.10.005	Overview of tools used: challenges faced - accessing teens with eye catching material, getting them to valid information, changing nature of sm, not demeaning importance of docs and med. attention. pros: effective, lots of kids reached, kids preferred source of information esp. about sensitive info.	Analysis of current offerings with health and social media

Allcott, H., Braghieri, L., Eichmeyer, S., Gentzkow, M. (2019, January 27). The welfare effects of social media. Retrieved from http://web.stanford.edu/~gentzkow/research/facebook.pdf	Deactivation freed about 60 min a day for treatment group. Deact. Also reduced news consumption and knowledge of current events/news as demonstrated by weekly quizzes – treatment group scored sig. lower on tests of knowledge. Deact. Decreased polarization on policy issues. Deact. Group also got less news from non-social media sites.	Large scale study with control group and treatment group. Treatment group was asked to deactivate FB for a one month period and monitored daily for deactivation. <27% failed to complete end survey, low attrition. Recruited through FB ads.
APA	**Findings related to SM and general Intro**	**Methodology/issues**
Moreau, E. (2018, September). Hottest social app trends for teens: Teens stay connected with these popular apps. [Blog Post]. Retrieved from https://www.lifewire.com/hottest-social-app-trends -for-teens-3485940	Teens are using twitter for reader friends access to news and up to date information on the world around them. The pics/messages make it appealing, creates the illusion of safe information	Review based off Pew Internet survey data as well as author knowledge on different apps. Teen focus group data on why they use apps involved in analysis. Biased on personal thoughts involved in answers.
Sherman, L., Payton, A.A., Hernandez, L.M., Greenfield, P.M. & Dapretto, M. (2016, May 31). The power of like in adolescence. Effects of peer influence on neural and behavioral responses to social media. *Psychological Science, 27*(7), 1027-1035. https://doi.org/10.1177/0956797616645673 Psychological Science, 27 (7), 1027-1035. doi: 10.1177/0956797616645673.	SM leads to more quantitative social endorsement (number of likes received) than qualitative that is found by talking to people face-to-face. Strong correlations found between an adolescent liking a photo if they saw or thought that photo already had lots of likes, even if photo displayed risky behavior like drinking, smoking, drugs or risky clothing. Same is true of their own picture, more likely to like it if it had higher number of likes - leads into thought on importance of self-presentation. Greater brain activity involved (through MRI) for those pictures that had a higher number of likes. This brain activity was true as well for risky photos...but an addition brain activity was cognitive control networks less active. This could put	Study specifically on Instagram. Small study with 34 participants, 2 excluded from data because of equip. malfunctions. Subjects submitted personal photos as well

	the viewer at an increased chance of taking part in riskier behavior.	
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults*. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015	Young adults are the most active users and have a high risk for dev. Mental health disorders.	Thesis review of lit.
Lin, L., Sidani, J., Shensa, A., Radovic, A., Miller, E., Colditz, J., … Primack, B. (2016, January). Association between social media use and depression among U.S. young adults. *Depression and Anxiety, 33*(4), 323-331. https://doi.org/10.1002/da.22466	Ave time on SM for teens is 61 minutes/day	Nationally representative survey from GfK. Web based survey sent via email for 3, 048 adults. 18 mo. Follow up. Assessed social media use time and Depression scale.
Steers, M.N., Wickham, R.E., & Acitelli, L.K. (2014). Seeing everyone else's highlight reels: How Facebook usage is linked to depressive symptoms. *Journal of Social and Clinical Psychology, 33*(8), 701-731.	Exposure to continual streams of information can lead to continual comparisons in pictures, like #'s, loves, comments and # of status updates.	14-day diary, counted on personal thoughts/analysis

https://doi.org/10.1521/jscp.2014.33.8.701		
Edison Research. (2018). Percentage of United States population with a social media profile from 2008 to 2018. Retrieved from https://www.statista.com/statistics/273476/percentage-of-us-population-with-a-social-network-profile/	YA spend nearly 200 min/day on a mobile device. 109 min. on SM apps, Leading networking sites used by YA in Feb. 17 are Snap (79%), FB (76%), Insta (73%), Twitter (40%), Pinterest (31%), Most important SM platforms teens rated in Feb. 17 are 1. Snap, 2. Insta, 3. Twitter, 4. FB 93% of teens age 15-17 have access to a mobile phone or tablet.	popular Survey done by Statista. National representative phone survey. N=2,000
Murphy, E., Olson, M. & Miller-Regan, N. (2018). *Semi-annual taking stock with teens survey.* Retrieved from http://www.piperjaffray.com/private/pdf/2018_Fall_TSWT_Spring_Infographic_LARGE.pdf.pdf	92% of teens access internet daily with 56% several times a day and 24% almost constantly. Most popular SN in Spring 2018 Snap (45%), Insta (26%), Twitter (9%), FB (8%), Pinterest (1%). 2018 shows most important SN is Snap chat for 45% of teens, FB 4th with 8% . FB is largest network with over 1.5 billion active users. Almost over 40% of Am. teens have active acct.	Online survey, nationally representative. N-8600
eMarketer. (2018). Teens aren't using Facebook as much as millennials and Gen Xers — here's the social platform each generation uses the most. Retrieved from https://www.businessinsider.de/top-social-media-platform-by-age-group-2018-8?r=UK&IR=T	Instagram 2nd most used SN. Predicted to growth: 2017: 92.6 million, 2018: 104.7 million, 2022: 130.7 Million	Survey 2017-18. Not shared on how data was collected. Just requirement that users signed on at least once/mon.

Verto Analytics. (n.d.). *Most popular mobile social networking apps in the United States as of July 2018, by monthly users (in millions).* Retrieved from https://www.statista.com/statistics/248074/most-popular-us-social-networking-apps-ranked-by-audience/	Most popular SM accessed July 2018. FB: 168.76 Million mobile users, Insta: 116.99 million, FB messenger: 110.95 million, Twitter: 70.21 Million, Pinterest 58.23 Mill, Snapchat 52.09 mill	18 YOA panelists, 20,000 participants
Tromholt, M. (2016, November). The Facebook experiment: Quitting Facebook leads to higher levels of well-being. Cyberpsychology, Behavior and Social Networking, 19(11). https://doi.org/10.1089/cyber.2016.0259	Well-being is positively associated with other important aspects of people's lives like health and longevity. SM is good use to keep in touch, share good things in lives and gain info about others.	FB found participants, then randomly assigned to group for trial - break from FB or no break. Was up to participants to fully decide whether or not to break this idea.
Moreau, E. (2018, September). Hottest social app trends for teens: Teens stay connected with these popular apps. [Blog Post]. Retrieved from https://www.lifewire.com/hottest-social-app-trends -for-teens-3485940	YouTube has vlogger abilities - it is not passive content, allows user feedback. Top 3 social apps used by teens are YouTube, instagram, and snapchat. 95% of teens have a cell phone	Visual assessment and online checking of active users.

Anderson, M., Jiang, J. (2018, May 31). *Teens, social media and technology,* 2018. Retrieved from http://www.pewinternet.org/2018/05/31/teens-social-media-technology-2018/	88% of students have desktop or laptop. No consensus among teens about the effect SM has on people their age. 24% mostly negative, 31% mostly positive and 45% neither positive or negative. 95% have access to a smart phone. 45% report being online almost constantly. 71% of teens use more than 1 SM. Using 85% YouTube, 72% Instagram, 69% Snapchat, 51% FB and 32% twitter. Use most often 35% use Snapchat, 32% use YouTube, 15% Instagram, 10% FB and 3% twitter. Of those with less than 1 SNS snapchat is used most of the time. Roughly 9 in 10 teens are online at least several times/day. SM helps interact with others and stay in touch. Easier to communicate with family and friends. Connect to new people and perceptions of feeling less lonely. Connection with information/news, Connect with those with similar interests. Learn new things, good venue for entertainment, place for self-expression and getting support from others. Downsides are leading to bullying, increased lack of personal contact, spreading of rumors, causes distractions and addictions, distorts reality and time lost on SN.	Used Amerispeak to find a nationally representative survey. This particular survey featured interviews with 1,058 parents who belong to the panel and have a teen ages 13 to 17, as well as interviews with 743 teens. Interviews were conducted online and by telephone from March 7 to April 10, 2018. The survey was conducted by NORC.
Lenhart, A. (2015). *Teens, social media & technology overview 2015*. Retrieved from http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/	Nearly 3/4ths of teens have access to a smartphone. 24% of teens report being online almost constantly. Social media stressors included seeing people posting about events to which you were not invited. 2. Feeling pressure to post positive/attractive content about self. 3. Feeling pressure to get comments/likes on your posts. 4. Having someone post things about you that you cannot control or change. 95% use the internet, 85% are on SM. only 19% say they were bullied online will e88% report reading/seeing cruel content	Based off Pew Research Data

Ben-Joseph, E.P. (2018, April). Teaching kids to be smart about social media. Retrieved from https://kidshealth.org/en/parents /social-media-smarts.html	no to little netiquette taught in school, post info that can identify to strangers who/where they are. Makes for an easy target for predators	Gov't website - based on recommendations for parents and education.
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults*. Retrieved from http://stars.library.ucf.edu/cgi/vi ewcontent.cgi?article=2683&co ntext=honorstheses1990-2015	Most pop. Reason for using SM is staying in touch with current friends, family making new friends, reading comments by celebs/politicians, finding romantic partners. Ave. Am age 18-64 spends 3.2 hours/day on social networks. 18-34 is at 3.8 hrs/day with 1 in 5 18-34 say 6 hrs/day. Social media activates the reward system of the brain like food or sex. Neurological changes in the brain make adolescents more sensitive to large environmental changes. Recommendations is that Sm is here to stay. Need to be aware of pros and cons, can help make educational choices on behavior. Increase public awareness of connection between mental health and SM	Thesis project - qualitative explanation explaining the relationship between social media and mental health of young adults. Review of existing literature. "understanding SM and the risks/benefits to overall health/well-being so they can be self-aware and monitor.
Centers for Disease Control and Prevention. (2018, October 31). *Well-being concepts*. Retrieved from https://www.cdc.gov/hrqol/well being.htm	"There is no consensus around a single definition of well-being, but there is general agreement that at minimum, well-being includes the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning.[4, 33-35] In simple terms, well-being can be described as judging life positively and feeling good.[36, 37] For public health purposes, physical well-being (e.g., feeling very healthy and full of energy) is also viewed as critical to overall well-being. Researchers from different disciplines have examined different aspects of well-being that include the following[4, 34, 38, 39, 41-46]:" Economic well-being, social well-being, dev. and activity, emotional well-being, life satisfaction, psychological well-	N/A

	being, domain spec. satisfaction, engaging activities and work	
APA	**Findings on SM and Mental Health**	**Methodology/issues**
Lup, K., Trub, L.& Rosenthal, L. (2025, May 1). Instagram #Instasad?: Exploring associations among Instagram use, depressive symptoms, negative social comparisons and strangers followed. Cyberpsychology, Behavior and Social Networking, 18(5). https://doi.org/10.1089/cyber.2014.0560	Instagram is different because reciprocal following is not required. Posting pictures or videos is required and you are required to flip through filters before posting. No one can do anything with pic other than like it - no other emotions offered. This leads to mostly positive content. Findings reported that significant correlations for those with 75% and 90% of followers being strangers (and highest time on SM at 2-3 hours) had higher #s of depressive symptoms. Those with same amt of time on SM 2-3 hours but with 10% of following strangers had lower than ave. number of depressive symptoms.	Study done - cross sectional. Surveyed instagram use and depression symptoms/social comparison. Based on self-report 18-29 YOA. FB recruitment and snowballing. Social comparison rating mitigated by # of strangers and depressive symptoms? T tests reported and demographics factored out. 1 outlier removed.
Woods, H. C. (2016, August). #Sleeptyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence, 51,* 41-49. https://doi.org/10.1016/j.adolescence.2016.05.008	Increased levels of depression positively associated with increased overall SM use r-.24 and p<.01. Adolescent. Report considerable anxiety when access to text base communication was removed.	Online survey in school ages 11-17 YOA. Measuring emotional investment in SM along with positive/negative attitude.

Chassiakos, Y.R., Radesky, J., Christakis, D., Moreno M.A., & Cross, C. (2016, November). Children and adolescents and digital media. *Pediatrics, 138*(5). 10.1542/peds.2016-2593	Not hours on social media, but the way SM is used that causes depressive symptoms. More passive use is more depressive symptoms as well as those who follow strangers. SM leads to exposure to risky behaviors (alcohol, sex, substance use, self-harm) which normalizes and makes those behaviors seem desirable.	Review of lots of areas of social media. Comprehensive, lots of studies but did not discuss how studies were selected or measurement tools used.
Weinstein, E. (2017, November). Adolescent differential responses to social media browsing: Exploring causes and consequences for intervention. *Computers in Human Behavior, 76,* 3960405. https://doi.org/10.1016/j.chb.2017.07.038	Those with negative comparisons (my life is not as good or fun) before browsing had significantly worse post browsing affective well-being with Instag. Link is unclear. If depressive symptoms stimulated browsing or if browsing stimulated depressive symptoms. Quantity of SM use did not predict depression, social comparison during SM use did with positive correlations	Exploration, question/answer type of survey. Also ownership survey.
Twenge, J., Joiner, T., Rogers, M., & Martin, G. (2017, November 14). Increases in depressive symptoms, suicide related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science, 6*(1), 3-17. https://doi.org/10.1177/2167702617723376	From 2010-2015 the number of US teens who felt useless and joyless rose 33%, Smartphone ownership and depression increased in tandem. Overall those that spent 2 or more hours a day online were significantly more likely to have suicidal risk factors, less time with friends and more time online are more likely to be depressed. The increase in depression symptoms and suicide attempts with growth of the smartphone - economic factors, homework, unemployment were factored out.	Study used data from the Youth Behavior Risk survey (since 1991), Monitoring the Future Study (since 1991), CDC fatal injury reports (1999 on) to find suicide deaths per year. They grouped questions and looked for trends and correlating statistics.
Shafer, L. (2017, December). *Social media and teen anxiety*. Retrieved from https://www.gse.harvard.edu/news/uk/17/12/social-media-and-teen-anxiety	Correlation between upward trend of sleeplessness, loneliness, worry and release of the iPhone.	Secondary source, based on analysis of articles noting the risking number of teens with anxiety and summarizing studies that demonstrate correlation but not causation to anxiety

Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults*. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015	SM promotes sedentary behavior (physical activity being a protective factor). Also replaces time for face-to-face interactions - protective factor. Study showed that a decrease in sedentary behaviors decreases the risk of mental health. Protective factor is that chatting/gaming can reduce the risk of depression. Time on FB correlated with depression.	Thesis project - qualitative explanation explaining the relationship between social media and mental health of young adults. Review of existing literature. "understanding SM and the risks/benefits to overall health/well-being so they can be self-aware and monitor.
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults*. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015	Intense FB use predicted loneliness, increase in # of FB friends the lower emotional adjustment to college life and the more time on FB the lower a self-esteem. 1 in 4 young adults will experience a depressive state between 18 and 24 years of age.	Review of studies. Identified different theories and studies related to SM. Synthesis of current information on SM and mental health relating to different theories to explain the relationship btwn SM and young adults and mental health
Sokol, S. (2013, February 20). Constant connection: The psychological impact of social media. Retrieved from http://www.ounewsbureau.com/?p=4314	SM can magnify problems because messages can be taken out of context and put additional strain on relationships - both defriending and blocking cause stress.	Secondary source. Analysis of studies done regarding SM and sleep/anxiety, SM/self-image/self esteem

L'Ecuyer, D. (n.d.). *How social media is directly affecting your mental health.* Retrieved from https://healthprep.com/mental-health/how-social-media-is-directly-affecting-your-mental-health/?utm_source=bing&utm_medium=search&utm_campaign=296531364&utm_content=1269936073448761&utm_term=mental%20media&msclkid=423c710e49b31de5ed1a2acfb206e37f	The way SM is used is contributing to mental health, not necessarily the technology objects themselves. Users see pictures of the happiest versions of times, filters are used, creates a sense of inadequacy and unattractiveness - can stimulate feelings of envy and jealousy.	Secondary Source - summary of research done into Facebook (done by FB director of Research - so biased info) and Mental Health
Tromholt, M. (2016, November). The Facebook experiment: Quitting Facebook leads to higher levels of well-being. *Cyberpsychology, Behavior and Social Networking, 19*(11). https://doi.org/10.1089/cyber.2016.0259	Quitting FB for 1 week had a higher degree of positive effect on the following three groups: 1 heavy users of FB, 2. passive users of FB. And 3. Users who envied others.	FB found participants, then randomly assigned to group for trial - break from FB or no break. Was up to participants to fully decide whether to break this idea.
Frison, E. & Eggermondt, S. (2017, October). Browsing, posting and liking on Instagram: The reciprocal relationships between different types of Instagram use and adolescent mood swings. *Cyberpsychology Behavior and Social Networking, 20*(10), 603-609. https://doi.org/10.1089/cyber.2017.0156	Conclusion: Passively Browsing Instagram at first measure was directly correlated to depressed mood at second measure. Depressed mood at first measure was positively predicted Instagram posting a time 2. Unlike other studies posting and liking at first measure was not linked to depressed mood at time 2. Reason? more image driven - get more peer acceptance if peer acceptance is what one is searching for?	Longitudinal study that measured instagram use on a Likert scale and Depression scale for children was given. Pen/paper questionnaire. Time 1 and Time 2 were 9 months apart. Other factors involved in Depressed feelings ?

Allcott, H., Braghieri, L., Eichmeyer, S., Gentzkow, M. (2019, January 27). The welfare effects of social media. Retrieved from http://web.stanford.edu/~gentzkow/research/facebook.pdf	Small but significant improvements of subjective well-being, self-reported happiness, improved life satisfaction and decreased levels of depression and anxiety in treatment group. Little evidence to support active vs. passive use differences. Deactivation decreased demand for FB and continued for one month after study ended survey – average use was still down 53 minutes for treatment group.	Control vs. treatment. FB ad recruited participants. Paid for one month deactivation of FB, weekly surveys on well-being and news consumption.
APA Citation	**Findings on Cyberbullying and SM**	**Methodology/issues**
White, A.E., Weinstein, E. & Selman, R.L. (2016, November 23). Adolescent friendship challenges in a digital context: Are new technologies game changers, amplifiers or just a new medium? *International Journal of Research into New Media Technologies, 24*(3), 269-288. https://doi.org/10.1177/1354856516678349	Analyzing MTV postings for ages 13-19. Categories they fall into and effects of social media on friendship. Friendship challenges identified: betrayal, isolation, meanness and harassment, concern and maintenance challenges in regard to scalability, replication, persistence, anonymity, communication medium and sexts as digital currency	Reviewers trained other reviewers, could be biased. Accounts read are online, willing posters may be people who are drawn to drama already
Slonje, R. & Smith, P. (2008, January 22). Cyberbullying: Another main type of bullying? *Scandanavian Journal of Psychology, 49*(2), 147-154. https://doi.org/10.1111/j.1467-9450.2007.00611.x	Old data shows that pictures were highest threat of feared bullying type and had the highest impact on victims and lowest perceived seriousness by bullies. Increased levels of bullying in younger kids. Majority of kids will tell no one of bullying (50%), friends of bullying (36%) then a trusted adult (13%). happens because cyberbullying is invisible, can get away with it and decreased opp. in this study for bystander intervention.	Questionnaire, student honest responses. Olweus a common Scandinavian anti-bully program all students exposed to since little, no measure of access to tech. Old modes of tech

| Hamm, M.P., Newton, A.S., Chrisholm, A., Shulhan, J., Milne, A., Sundar, P., Ennis, H., Scott, S. & Hartling, L. (2015, June 22). Prevelence and effect of cyberbullying on children and young people; a scoping review of social media studies. *Journal of the American Medical Association, 169*(8), 770-777. https://doi.org/10.1001/jamapediatrics.2015.0944 | Strong correlations found between cyberbullying and depression, increased aggression, negative impact on relationships with family, friends and romantic ones, increase in withdrawn, decreased self confidence and self-esteem, increase in uneasiness, increase in alcohol/substance use. At school a decrease in attendance and grades was common as well as increase in trouble. Cyberbullying associated with increase in suicide idealization but not attempts and a weak correlation with anxiety. Most common reason for cyberbullying was defined as relationships in 91% of all surveys. The more exposure to internet use the more common cyberbullying was, with social media sites the most common reported. The younger the kids the more distressing the effects, most hurtful form perceived was pictures and videos. Common theme was not knowing what to do about it and more likely to report to friends | Analysis of 34 publications on cyberbullying by 2 reviewers on 11 different databases. Definition of social media excluded text messaging and talking applications like skype. Over 50% of respondents were female while less than 50% were male |
| Chassiakos, Y.R., Radesky, J., Christakis, D., Moreno M.A., & Cross, C. (2016, November). Children and adolescents and digital media. *Pediatrics, 138*(5). 10.1542/peds.2016-2593 | Review done - Definition of cyberbullying: an Aggressive intentional act or behavior that is carried out by a group or individual using electronic forms of contact repeated over time against a victim who cannot easily defend self. Kids have social media platforms - more than one platform. vulnerable populations more likely to be cyberbullied = LGBTQ and ASD for example. Decrease in grades, increase in school trouble, increase in depression and increase in suicidal idealization. | Review of lots of areas of social media. Comprehensive, lots of studies but did not discuss how studies were selected or measurement tools used. |

| Kowalski, R.M., Giumetti, G.W., Schroeder, A. N. & Lattanner, M.R. (2014, July). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin, 140*(4), 1073-1137. https://doi.org/10.1037/a003561 8 | Positive relationships found between victimization and stress, anxiety, depression, loneliness, conduct problems, drug and alcohol use, and suicide ideation. Positive rel. found between perp and prior victimization both online and in real life, having a normalized view of aggressive behavior and moral disengagement. not all platforms showed a tie between being bullied and being a bully - varied among SM being studied. Same definition of cyberbullying except included deception, email, rumor spreading, cyberstalking, impersonation, exclusion and sexting. Divided bullying and cyber by 2 common factors: 1. bullier perceives anonymity and 2. Constant access to victim provides immediate feedback. Victimization reports ranged from 10 - 40% but when bullying was changed to saying mean things reports went up to 70%. | Lots of correlation studies discussed and inclusion/exclusion for each study done was discussed. Various stages of inclusion for different studies. |
| Sampasa-Kanyinga, H., Roumeliotis, P., & Xu, H. (2014, July 30). Associations between cyberbullying and school bullying victimization and suicidal ideation, plans and attempts among Canadian schoolchildren. *Public Library of Science (PLoS).* https://doi.org/10.1371/journal. pone.0102145 | Students on computers or participating in sedentary activities are more likely to be cyberbullied. Positive association shown between cyberbullying and school bullying and suicide idealization. Cyberbullying related to psychological distress and girls are twice as likely to experience cyberbullying as boys. | Data pulled from Eastern Ontario Youth Beh. Risk survey in 7-12th grade students. Identified associations between cyberbullying and suicidal idealizations compared to school bullying and suicide ideal. |

Kuehn, K. S., Wagner, A. & Velloza, J. (2018, September 14). Estimating the magnitude of the relation between bullying, e-bullying, and suicidal behaviors among United States youth, 2015. Journal of Crisis Intervention and Suicide Prevention. https://doi.org/10.1027/0227-5910/a000544	Cyberbullying has a stronger correlation to suicide attempts at 4.16% than in person bullying at 2.46%	2015 YRBS. Adjusted data for sexual orientation, obesity and sleep. Tried to identify causal.
Sanfilippo, J.S. (2015, February). It's all about the social media. *Journal of Pediatric and Adolescent Gynecology, 28*(1), 1. https://doi.org/10.1016/j.jpag.2014.11.006	Defining cyberbullying as someone who deliberately uses social media to perpetuate false and humiliating or make violent/intrusive information about another individual	Analyzing studies and definitions of cyberbullying to complete a def.
United States Department of Health and Human Services. (2017, July 10). *What is cyberbullying*. Retrieved from https://www.stopbullying.gov/cyberbullying/what-is-it/index.html	Defining Cyberbullying as bullying that takes place over digital devices like cellphones, computers, tablets, thru SMS, txt and apps/online social media forums and gaming. It contains the use of posting or sharing negative or harmful/false or mean content. 2017 YRBS stated 14.9% high schoolers have been bullied in the past 12 months. Cyberbullying concerns for adults include: it is persistent, it is permanent, and it is hard to notice (can't just overhear it). Most cyberbullying occurs on SM like FB, instagram, snapchat, twitter, text and instant messaging.	Gov.'t website definition
Minnesota Department of Health. (2016). *Minnesota Student Survey*. Retrieved from https://education.mn.gov/mdeprod/groups/communications/documents/basic/bwrl/mdu5/~edisp/mde059325.pdf	During the past 30 days: How often have you been bullied through email, chat rooms, instant messaging, websites or texting. 5th grade B: 1 time/week 13% 5F: 13% @1/week, 8th M: 7% @1/week, 8F: 16% @ 1/week, 9M: 7% @1/week, 9F: 14%@	Student self-reported survey

	1/week, 11M: 6% @ 1/week, 11F: 11% @ 1/week.	
Centers for Disease Control and Prevention. (2017). *Youth Risk Behavior Survey*. Retrieved from https://www.cdc.gov/healthyyouth/data/yrbs/results.htm	Electronically bullied: 14.9% of students have been bullied on texting, instagram, FB or other SM in the past 12 months. Down from 15.5% in 2015 data.	Student self-reported survey
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015*	SM allows the illusion of companionship - changes the privacy of relationships, others can see all! May be viewed as a way to stay close with people, but can easily backfire. SM can magnify a problem by defriending/blocking, catching what seems to be cheating, bullying and fear of missing out.	Thesis project - qualitative explanation explaining the relationship between social media and mental health of young adults. Review of existing literature. "understanding SM and the risks/benefits to overall health/well-being so they can be self-aware and monitor.
Weinstein, E. (2017, November). Adolescent differential responses to social media browsing: Exploring causes and consequences for intervention. *Computers in Human Behavior, 76,* 3960405. https://doi.org/10.1016/j.chb.2017.07.038	six specific stressors were identified in Over the Line by MTV in relation to digital mentioning: "impersonation (creating new account or breaking into account)," "receiving mean and harassing personal attacks (on SM or txt)," "public shaming and humiliation (slander posted and nudes)," "breaking and entering into accounts and devices (hacking devices or accounts to look at address books/messages)," "feeling pressure to comply," and "feeling smothered (constant access)." Shaming, impersonation and pressure to comply were types teens most often felt were over the line behavior. Some behaviors driven by meanness and cruelty and some by relationship needs or desire for connections	Categorized stories from Over the Line - an MTV production, to which teens that already prone to drama will post on.

Marwick, Alice & Boyd, Danah. (2014, April). It's just drama: Teen perspective on conflict and aggression in a networked era. Journal of Youth Studies, 17(9), 1187-1204. doi: 10.1080/13676261.2014.90149 3.	we define drama as '*performative, interpersonal conflict that takes place in front of an active, engaged audience, often on social media*.' Several young people mentioned that the visibility of social media. Furthermore, social media allows additional opportunities for participation, including adding comments and 'liking' status updates Drama involves 2 sides and fighting back - not necessarily the imbalance of power. A few described as something to do when they are bored! SM plays into the performantly of it because there is an audience -- gather support for their side. SM provides persistence. It is a blurred line with gossip and bullying, protection factor to some...it's just drama. - a defense system.	Face-to-face interview to determine the concept of drama. 2 sets of interviews and observations. Both online and offline. Neither used the term drama. Screenshots of described drama were taken from SM platforms and interviewees were asked to describe/define drama. Limitations: for future, SM platforms change and changed during the course of the study.
Sokol, S. (2013, February 20). Constant connection: The psychological impact of social media. Retrieved from http://www.ounewsbureau.com/ ?p=4314	SM can magnify problems because messages can be taken out of context and put additional strain on relationships - both defriending and blocking cause stress.	Secondary source. Analysis of studies done regarding SM and sleep/anxiety, SM/self-image/self esteem
DePaolis, K. & Williford, A. (2018, May). Pathways from cyberbullying victimization to negative health outcomes among elementary school students; a longitudinal investigation. *Online Journal of Child and Family Studies.* https://doi.org/10.1007/s10826-018-1104-6	students with high levels of cyberbullying victimization had lower self-esteem and lower levels of school connectedness and showed more symptoms of depression (findings measured 1.5 years later)	Diverse, longitudinal study. Data taken from 2 age groups at 4 times over 2 years. 9 ways cyberbullying takes place were ranked on a scale. 5 different scales used on various point Likert scale looking at how often cyber bull hap. over the past 30 days.

Simão, A.M., Ferreira, C., Freire, I., Caetano, A.P., Martins, M.J., & Vieira, C. (2017, July). Adolescent cybervictimization – Who they turn to and their perceived school climate. *Journal of Adolescence, 58,* 12-23. https://doi.org/10.1016/j.adolescence.2017.04.009	Kids more likely to tell friends about cyberbullying, then parents and only teachers when there was a positive perc of school climate involved.	*Cybervictims Scale for Adolescents and Children* and the *Perceived School Climate Scale* used and given to school kids- 6, 8th and 11th grade in Portugal
Chapin, J. & Coleman, G. (2017, September). The cycle of cyberbullying: Some experience required. *The Social Science Journal, 54*(3), 314 – 318. https://doi.org/10.1016/j.soscij.2017.03.004	students believe they will not be victims overwhelmingly - also victim blaming. Over half blame the victim for the bullying - they did something to deserve it. Among those who did believe they would be bullied, they were also more likely to cite they were more likely to be a bully.	self-reported survey, 1600 middle and high school students. Operationalize optimistic bias and cyberbullying
Patchin, J. & Hinduja, S. (2015, July – August). Measuring cyberbullying: Implications for research. *Aggression and Violent Behavior, 23,* 69 – 74. https://doi.org/10.1016/j.avb.2015.05.013	Operationalize and come up with a measurable survey on cyberbullying	review of studies on bullying and cyberbullying
APA	**Findings on Sleep and SM**	**Methodology/issues**
Bharanidharan, S. (2018, October 3). *Teens sleeping less more likely to show suicidal behavior, act unsafely*. Retrieved from https://www.medicaldaily.com/teens-sleeping-less-more-likely-show-suicidal-behavior-act-unsafely-427820	High School students who get less than 6 hours of sleep/night may be more likely to engage in unsafe behaviors involving substance use and self-harm.	Survey based on High School students. Self-reported, divided into sleep categories, so hours grouped together and compared to other questions including self-reported life behaviors including grades and risky behaviors.

Weaver, M. D., Barger, L. K., Malone, S., Anderson, L. S. & Klerman, E. B. (2018, October 1). Dose dependent associations between sleep duration and unsafe behaviors among US high school students. *Journal of the American Medical Association, online content.* https://doi.org/10.1001/jamapediatrics.2018.2777	more than 70% of US teens getting less than 8 hrs. sleep/night. Those who are getting under 6 hrs/night are 2 times as likely to report using alcohol, tobacco, marijuana, drive under the influence and engage in risky sexual activities. Teens who slept under 6 hrs 3 times more likely to consider or attempt suicide	limitations: self-report, no cause and effect relationship - other factors could play a role other than sleep. Limiting screen time is a suggestion for getting better sleep.
Twenge, J., Joiner, T., Rogers, M., & Martin, G. (2017, November 14). Increases in depressive symptoms, suicide related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science, 6*(1), 3-17. https://doi.org/10.1177/2167702617723376	Teens are sleeping less and those who spend more time on phones are more likely to not be getting enough sleep	Study used data from the Youth Behavior Risk survey (since 1991), Monitoring the Future Study (since 1991), CDC fatal injury reports (1999 on) to find suicide deaths per year. They grouped questions and looked for trends and correlating statistics.
Chassiakos, Y.R., Radesky, J., Christakis, D., Moreno M.A., & Cross, C. (2016, November). Children and adolescents and digital media. *Pediatrics, 138*(5). 10.1542/peds.2016-2593	those with high SM use and have phones in rooms at night had worse sleep and an increase in sleep disturbances. After 9pm SM use, tech use, internet use and # of devices in room correlated with negative sleep	Review of lots of areas of social media. Comprehensive, lots of studies but did not discuss how studies were selected or measurement tools used.

Arora, T., Albahri, A., Omar, M., Omar, M. S.C., Ahmad, S., Taheri, S. (2018, October). The prospective association between electronic device use before bedtime and academic attainment in adolescents. *Journal of Adolescent Health, 63*(4), 451-458. https://doi.org/10.1016/j.jadohealth.2018.04.007	Social networking before bed negatively correlated to decreased academic performance in Science and English. Video gaming neg. correlated with English. What was not supported was that time on devices replaced time spent studying. Time remained the same studying claimed, but could have been later, displacing sleep.	Analyzed 5 types of technology before bed time: TV, video gaming, listening to music, social networking and mobile phone use. Looked at use specifically before bed
National Sleep Foundation. (n.d.). *How much sleep do we really need*? Retrieved from https://www.sleepfoundation.org/excessivesleepiness/content/how-much-sleep-do-we-really-need-0	Teens age 14-17 need 8-10 hours of sleep a night	Secondary source - panel of sleep experts creating new sleep recommendations and guidelines. Review of over 300 sleep studies
Bauducco, S.V., Flink, I.K., Jansson-Frojmark, M. & Linton, S.J. (2016, September). Sleep duration and patterns in adolescents; correlates and the role of daily stressors. *Sleep Health, 2*(3), 211-218. https://doi.org/10.1016/j.sleh.2016.05.006	15% ave. of teens are not getting enough sleep. Same percentage of kids had an increase in reporting emotional problems, depression, anxiety, anger. Tech use before bed positively correlated with less sleep.	Cross sectional survey measuring total sleep time. Self-reporting on sleep adequacy and stress measures.
Strickland, A. (2014, Fall Term). *Exploring the effects of social media use on the mental health of young adults*. Retrieved from http://stars.library.ucf.edu/cgi/viewcontent.cgi?article=2683&context=honorstheses1990-2015	Blue light suppressing melatonin equaling a decrease in sleep quality which affects health. Those that suffer from anxiety tend to spend less time in sleep - disconnection in circadian rhythms.	Thesis project - qualitative explanation explaining the relationship between social media and mental health of young adults. Review of existing literature. "understanding SM and the risks/benefits to overall health/well-being so they can be self-aware and monitor.

Woods, H. C. (2016, August). #Sleeptyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence, 51,* 41-49. https://doi.org/10.1016/j.adolescence.2016.05.008	Sm and alerts at all times of the day/night with 86% of teens sleeping with device in bedroom. 1/4 of adol. Surveyed reported interruptions from text alerts. SM sends similar alerts. High connection between increased computer/internet use and sleep. Connection known between poor sleep and contribution to depression, anxiety, low self-esteem. Constant alerts create pressure to be available 24/7. Nighttime use of Sm predicted poorer sleep quality indicating that night time use is more important. High night time specific SM and high emotional investment in SM (Missing out).	Online survey in school ages 11-17 YOA. Measuring emotional investment in SM along with positive/negative attitude.

Appendix G

Letters of permission from districts to conduct research

Lake City Public Schools

Independent School District 813

Committed to lifelong learning
www.lake-city.k12.mn.us

March 29, 2019

Dear Katie Kennedy,

I am familiar with your research project titled "Social Media: Positive and Negative Effects on Adolescent Well-Being in Goodhue County, MN" (IRB #1382021) and your desire to have the Lake City School District involved with it. I understand the role of the Lake City School District to be allowing you to survey students age 15 -18 using an online survey during our Ramp Up time. I understand that the survey tool Qualtrics will be used and the survey should take approximately 10 minutes.

We have also discussed the role of the Lake City students and staff and I am satisfied that their safety and welfare are adequately protected as described in the research protocol. In addition, I understand that this research will be carried out following sound ethical principles and that involvement in this research, for both Minnesota State University, Mankato and the Lake City School District, is strictly voluntary and guarantees the protection of participant's privacy. All surveys collected will be anonymous and I understand that the student researcher or investigator cannot provide me with data that might allow anyone to identify anyone's answers. I agree that there will be no negative consequences in the Lake City School District for potential participants based on whether or not they choose to participate in the study.

Therefore, as a representative of Lake City Public School District, I agree to allow you to conduct your research in our district.

Sincerely,

Our Mission

The Lake City Public Schools is dedicated to education as a life-long process to develop the potential of each student.

☑ **District Office**	☐ **Lincoln High School**	☐ **Bluff View Elementary**
300 S Garden St	300 S Garden St	1156 W Lakewood Ave
Lake City, MN 55041	Lake City, MN 55041	Lake City, MN 55041
Phone (651) 345-2198	Phone (651) 345-4553	Phone (651) 345-4551
Fax (651) 345-3709	Fax (651) 345-5894	Fax (651) 345-2781

"Equal Opportunity Employer"

Zumbrota-Mazeppa Public Schools

ZM Elementary School
343 Third Avenue NE, Mazeppa, MN 55956
507-732-1420
ZM Primary School
799 Mill Street, Zumbrota, MN 55992
507-732-7848

Independent School District No. 2805
343 Third Avenue NE, Mazeppa, MN 55956
507-732-1600   www.zmschools.us
ZM High School/Middle School
705 Mill Street, Zumbrota, MN 55992
507-732-7395

A Bridge to the Future

March 29th, 2019

Dear Katie Kennedy,

I am familiar with your research project titled Social media: Positive and negative effects on adolescent well-being in Goodhue County, MN (IRB #1382021) and your desire to have Zumbrota/Mazeppa involved with it. I understand the role of the Zumbrota/Mazeppa School District to be allowing you to survey students age 15 -18 using an online survey during our advisor time. I understand that the survey tool, Qualtrics will be used and the survey should take approximately 10 minutes.

We have also discussed the role of the Zumbrota/Mazeppa students and staff and I am satisfied that their safety and welfare are adequately protected as described in the research protocol. In addition, I understand that this research will be carried out following sound ethical principles and that involvement in this research, for both Minnesota State University, Mankato and the Zumbrota/Mazeppa School District is strictly voluntary and guarantees the protection of participant's privacy. In particular, I understand that the investigator cannot provide me with data that might allow anyone other than the research team to identify anyone's answers unless permission has been specifically given by the subject. I agree that there will be no negative consequences for potential participants based on whether or not they choose to participate in the study.

Therefore, as a representative of the Zumbrota/Mazeppa School District, I agree to allow you to conduct your research in our district.

Sincerely,

Mike Harvey

Mike Harvey
Zumbrota-Mazeppa School Superintendent

Goodhue Public Schools

Independent School District #253
510 Third Avenue, Goodhue, MN 55027, (651)923-4447

April 2, 2019

Dear Katie Kennedy,

I am familiar with your research project titled "Social Media: Positive and Negative Effects on Adolescent Well-Being in Goodhue County, MN" (IRB #1382021) and your desire to have Pine Island involved with it. I understand the role of Goodhue Public Schools to be allowing you to survey students age 15 -18 using an online survey during our Health and Physical Education Class time. I understand that the survey tool Qualtrics will be used and the survey should take approximately 10 minutes.

We have also discussed the role of the Goodhue students and staff and I am satisfied that their safety and welfare are adequately protected as described in the research protocol. In addition, I understand that this research will be carried out following sound ethical principles and that involvement in this research, for both Minnesota State University, Mankato and Goodhue Public Schools, is strictly voluntary and guarantees the protection of participant's privacy. All surveys collected will be anonymous and I understand that the student researcher or investigator cannot provide me with data that might allow anyone to identify anyone's answers. I agree that there will be no negative consequences in the Goodhue Public School for potential participants based on whether or not they choose to participate in the study.

Therefore, as a representative of Goodhue Public Schools, I agree to allow you to conduct your research in our district.

Sincerely,

Dr. Evan Gough, Superintendent

Kenyon-Wanamingo
Public Schools

District 2172 Office	**Middle-High School**	**Elementary School**
225 Third Avenue	400 Sixth Street	225 Third Avenue
Wanamingo, MN 55983	Kenyon, MN 55946	Wanamingo, MN 55983
Phone 507-789-7001	Phone 507-789-6186	Phone 507-824-2211
Fax 507-789-7032	Fax 507-789-6188	Fax 507-789-7033

April 5, 2019

Dear Katie Kennedy:

I am familiar with your research project titled "Social Media: Positive and Negative Effects on Adolescent Well-Being in Goodhue County, MN" (IRB #1382021) and your desire to have the Kenyon-Wanamingo Public Schools involved with it. I understand the role of the Kenyon-Wanamingo Public School to be allowing you to survey students age 15 -18 using an online survey during our Health and Physical Education Class time. I understand that the survey tool Qualtrics will be used and the survey should take approximately 10 minutes.

We have also discussed the role of the Kenyon-Wanamingo students and staff and I am satisfied that their safety and welfare are adequately protected as described in the research protocol. In addition, I understand that this research will be carried out following sound ethical principles and that involvement in this research, for both Minnesota State University, Mankato and Kenyon-Wanamingo School District, is strictly voluntary and guarantees the protection of participant's privacy. All surveys collected will be anonymous and I understand that the student researcher or investigator cannot provide me with data that might allow anyone to identify anyone's answers. I agree that there will be no negative consequences in the Kenyon-Wanamingo Public School District for potential participants based on whether or not they choose to participate in the study.

Therefore, as a representative of Kenyon-Wanamingo Public School District, I agree to allow you to conduct your research in our district.

Sincerely,