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SOCIAL MEDIA USAGE AND PSYCHOLOGICAL WELL-BEING IN

ADOLESCENTS: A COMPARISON AMONG DEMOGRAPHICS

by

Heather A. McCall

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Family and Consumer Science Extension and Education

Approved:

Kelsey Hall, Ed.D. Committee Chair	Tasha Howard, M.F.H.D. Committee Member
Lucy Delgadillo, PhD Committee Member	D. Richard Cutler, PhD Interim Vice Provost of Graduate Studies

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ABSTRACT

Social Media Usage and Psychological Well-being in Adolescents: A Comparison

Among Demographics

by

Heather McCall, Master of Science

Utah State University, 2021

Major Professor: Kelsey L. Hall, Ed.D.
Department: School of Applied Sciences, Technology and Education

Youth in the U.S. are obtaining access to smartphones and social media at increasingly younger ages. Adolescents are charged with developmental tasks of exploring their identity and navigating interpersonal relationships and social comparisons. Social media use has become a part of daily interactions, and this research examines how this expansion in communication may affect psychological well-being.

The study investigated social media use and psychological well-being in adolescents, ages 13-17, and explored similarities and differences among gender and racial identities. Research objectives were (1) describe adolescents' social media use, (2) identify adolescents' online comparison and feedback-seeking behavior when using social media, (3) describe the adolescents' psychological well-being, and (4) investigate relationships between gender identity, ethnic identity, social media use, online comparison and feedback-seeking behavior, and psychological well-being.

These findings can guide Extension professionals, mental health professionals, and caregivers in the ways they use and allow use of social media. Extension professionals may consider using more audio/visual type of social media including YouTube to connect with adolescents. This information may also be used in Extension to teach caregivers how to have parental mediation conversations concerning potential issues that adolescents may encounter on social media. Mental health professionals can work with caregivers to normalize social media use and online comparison and feedback-seeking behaviors as a development task in Erik Erikson's stages of psychosocial development. Caregivers can have recent data to compare other U.S. adolescents on when to get their children smartphones, social media accounts, and amount of time spent on social media.

(102 pages)

PUBLIC ABSTRACT

Social Media Usage and Psychological Well-being in Adolescents: A Comparison

Among Demographics

Heather McCall

The purpose of this study was to examine social media use of adolescents in the U.S. and their psychological well-being to expand the research of this quickly changing topic. The researcher collected online responses from 409 adolescents between the ages of 13-17 years old concerning their social media use and psychological well-being.

Variables in the research included time spent on social media, number of platforms used, active use, parental mediation, and emotional connection. The two variables that had a statistically significant relationship with psychological well-being included parental mediation and emotional connection to social media.

Recommendations for continued research could include examination of the parent-adolescent relationship, parenting styles, and a dyadic survey to study both parents' and adolescents' perceptions of screen time use and psychological well-being. This research contributes recommendations for practice to Extension professionals and mental health professionals to assist parents and caregivers to navigate norms and provide a framework for more parental mediation concerning their adolescent's social media use.

DEDICATION

To Alex

ACKNOWLEDGMENTS

I would first like to thank my committee chair, Dr. Kelsey Hall, who continually taught and encouraged me throughout this entire process. It has required the patience of an angel to work with me and I am beyond grateful. I could have not done this without you validating and normalizing the hardships of writing a thesis. I would like to acknowledge your long hours and sacrifices on this project, which I appreciate beyond words. It has been a pleasure to have you as my mentor, and I will carry your kindness with me always as I teach and mentor others.

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Heather McCall

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CHAPTER I

INTRODUCTION

Background

Within a few decades, communication has become instant and global. Kay (2018) distinguishes the impact of the digital age into two periods: (1) Web 1.0, the beginning of availability and access to the internet (late 1980s-2003) and (2) Web 2.0, the arrival of social media as a predominant use of the internet (2004 onward). The COVID-19 pandemic has recently changed how we communicate and interact. With social distancing and stay-at-home orders, people have turned even more toward online platforms and social media to stay connected with friends, family, and colleagues whom they might normally communicate with in person. Social media platforms saw a 61% increase in usage since the COVID-19 pandemic began (Nabity-Grover et al., 2020). Specifically, Instagram and Facebook saw a worldwide increase in usage of 40% from March to April 2020. Between February and April 2020, messaging on Instagram and Facebook messenger increased by 70%. In this same time frame, U.S. children ages 4-15 spent 13% more time on YouTube, 16% more time on TikTok, and 31% more time on Roblox (Nabity-Grover et al., 2020). Research agrees that the predominant reasons that U.S. households use the internet are communicating with friends or family and looking up information (Anderson & Jiang, 2018; Smith et al., 2018).

Adolescents are gaining access to mobile devices at earlier ages (Dyer, 2018; Martin et al., 2018; Parent et al., 2017). In a study of 593 students aged 16 and younger,

17% of children began using social media at age nine or younger (Martin et al., 2018).
Twenge and Campbell (2018) studied 2- to 17-year-olds' screen time and found that total
screen time was progressively higher among older children, with the most significant
increase in screen time between elementary and middle schools. By ages 14-17,
adolescents spent 4 hours and 35 minutes a day with screens, according to their
caregivers.

Adolescents are the age group with the highest social media use (Smith et al.,
2018). Pew Research reported that adolescents were using increasingly more social media
platforms in 2018 than in 2015 (Anderson & Jiang, 2018). Each platform serves a
different function and meets a different social need. Social media platforms provide space
for adolescents to connect with others, explore their identity, and seek social support that
they may not be able to access in their geographical community (Gabriele-Black &
Goldberg, 2019; Radovic et al., 2017; Shapiro & Margolin, 2014).

Problem Statement

This study expanded on current research by focusing on adolescents in the U.S.
and examined the influence of gender identity and ethnic identity on social media usage
and psychological well-being. While there is much research on social media use, few
studies focus on adolescents in the U.S. Those studies on adolescents' social media usage
in the U.S. vary in the region, sample size, and purpose. The primary focus of much of
the research on social media and psychological well-being in the U.S. thus far has mainly
explored college-age adults (Cocorada et al., 2018; Elhai et al., 2018; Hardy &

Castonguay, 2018). Mixed results from previous studies are beginning to hint that age might be a factor in the social media and mental health relationship (Hardy & Castonguay, 2018).

The current literature frequently includes gender and ethnicity in the demographics collected, although it is rarely used as an explanatory variable and seldomly used to report findings related to social media usage and psychological well-being (Schonning et al., 2020). Orben and Przybylski (2019) stated that gender was an under-explored variable when examining social media's influence. Thelwall and Vis (2017) found that both genders used social media, but in different ways, and suggested further research of gender differences with social media. Harris et al. (2017) suggest that racial or ethnic identity should be researched more thoroughly because it reflects individuals' experiences and traits.

Purpose Statement

This study described and investigated the relationships between gender identity, ethnic identity, social media use, online connection and feedback-seeking behaviors, and psychological well-being of adolescents.

Research Objectives

1. Describe adolescents' social media use.

2. Identify adolescents' online comparison and feedback-seeking behavior when using social media.

3. Describe the adolescents' psychological well-being.

4. Investigate the relationships between gender identity, ethnic identity, social media use, online comparison and feedback-seeking behavior, and psychological well-being.

Limitations of the Study

This sample was limited to participants who were recruited by Centiment, an accredited survey company. Participants were limited to those who had internet access to take an online survey. This quantitative study did not allow participants to provide further explanation on most of their responses. The participants understanding of terminology may be limited. The participants self-reported, which may be skewed. Participants may have answered according to their perceived "correct" or "socially preferred" answers.

This survey was conducted in spring 2021, which was during the COVID-19 pandemic. COVID-19 has impacted adolescents' lives through school closures and decreased face-to-face social contact (Isumi et al., 2020). Because of COVID-19, there has been an increase in online and mobile devices for work and socializing purposes while social distancing (Das et al., 2020). This study acknowledges that adolescents' social media usage and their psychological well-being might differ during the pandemic.

Delimitations of the Study

The researcher set the youngest age for participants to be 13 years old, as most social media apps require users to be 13 years of age to utilize their services (Auxier et al., 2020). Thirteen is the youngest age for panelists to answer surveys for Centiment, the survey company used for this study.

Assumptions

1. Each participant read the questions thoroughly, understood the terminology, and answered the survey questions truthfully.

2. Each participant had a smartphone with access to the internet and participates in some form of social media.

Significance of the Problem

The results of this research will provide Extension professionals, mental health providers, and parents or caregivers a framework to have open communication concerning social media and for potential guidelines on how to help adolescents manage and navigate their screen time, social media usage, and explore their identity in a way that may support their psychological well-being. As social media is becoming a more frequent way of communicating, younger people may need proper guidance to approach it more mindfully and purposefully (Dhir et al., 2018; Gower & Moreno, 2018; Radovic et al., 2017).

This study adds to the existing research by addressing the association between social media use and psychological well-being indicators and exploring differences of usage between gender identity and ethnic identity of adolescents in the U.S. Because technology, apps, and devices frequently change from the time of a study to publishing (Strong et al., 2018), research can be out-of-date before it is published. Ongoing studies are needed as technology changes and children start to engage with technology at younger ages (Martin et al., 2018).

Definitions of Terms

Active use: Posting one's own content, sharing content, commenting, and responding to others, "liking" posts, or voting (Escobar-Veira et al., 2018).

Emotional connection: A measurement to describe individuals who use social media as their primary source to relieve stress, loneliness, or depression (Bekalu et al., 2019).

Feedback-seeking: Solicitation of self-relevant information from valued others (Nesi, 2014).

Identity: Fundamental organizing principle that develops throughout the lifespan, which provides continuity between self and interaction with others, and differentiates between self and others (Rageliene, 2016).

Mental health: Complex part of cognitive neuroscience influenced by different factors, such as biological, psychological, social, and environmental systems (Asare, 2015).

Passive use: Those who are observing and reading content without creating or engaging (Escobar-Veira et al., 2018).

Psychological well-being: Contentment with life and experiencing a richness of positive emotions. Self-perceived success in areas including relationships, self-esteem, meaning, purpose, and optimism (Babic et al., 2017).

Social comparison: Comparison with peers on perceived relevant traits (Nesi, 2014).

Social media: Mobile and web-based technologies that create highly interactive

platforms, which individuals and communities share, co-create, discuss, and modify user-generated content (Kietzmann et al., 2011).

Recreational screen-time: The use of screens for entertainment purposes and not for work or school (Babic et al., 2017).

Routine use: A measurement of the integration of social media into daily lives and routines (Bekalu et al., 2019).

CHAPTER II

LITERATURE REVIEW

With the expansion of social media and communication through technology, researchers are interested in how social media may affect identity formation in adolescence (Cyr et al., 2015). In Erik's theory of psychosocial development, the primary task for adolescents is identity formation (Chen, 2019). Research has shown that formed sense of identity is associated with better psychological well-being in adolescents (Chen, 2019; Rageliene, 2016). Yang et al. (2018) stated that the process of identity formation is rooted in self-presentation to others, and social media is currently the most common setting to explore identity. Social media provides an opportunity for social comparison, a developmentally appropriate task in adolescence that contributes to identity development, yet it has not been comprehensively researched. With identity exploration frequently taking place on social media, researchers must consider how adolescents engage with social media from a psychosocial development perspective, as it shapes their psychological well-being (Pea et al., 2012; Yang et al., 2017). This literature review examined the connection of the developmental task of identity formation through social media usage and comparisons on social media as they relate to psychological well-being.

Theoretical Framework

How social media use influences adolescents' psychological well-being was examined in relation to Erik Erikson's theory of psychosocial development. This theory is comprised of eight stages that individuals experience as they mature (Erikson, 1950).

How each person experiences those stages will influence their sense of self (Batra, 2013).
This research only focused on the stage closest to the age range being researched.

The stage of identity versus role confusion happens in adolescence, approximately
12-18 years old, generally from puberty until adulthood (Erikson, 1950). Erikson
described the primary task of adolescence as identity development. Identity exploration
should not only be expected in adolescence but also encouraged as a healthy part of
development (Davis et al., 2008). As the child evolves through friends, fashion, and
interests, there is a strong desire to find oneself in a social context. Erikson suggested that
adolescents thrive in a space in which they are encouraged to experiment with different
identities (Davis & Weinstein, 2017). In this identity developing stage, adolescents seek
feedback from those around them and reflect on their own values and goals to achieve a
sense of self. The anonymity of the internet allows the ability to try on unexplored
aspects of oneself without inhibitions, which may or may not transfer to in-person
relationships, and a feeling of a more authentic self. Individuals can create and recreate
their online persona as they change their identity expression (Davis & Weinstein, 2017).
As one matures, they develop different types of identities, including gender and ethnic
identity, which is a sense of self (Moningka, 2017). Sense of self or self-concept is how a
person describes themselves, how they think about and judge themselves. Sense of self is
shaped through interaction with one's environment and other people. A positive self-
concept and sense of identity is related to positive psychological well-being.

Individuals might alter their identity self-presentation online to impress, deceive,
or explore (Moningka, 2017). Social media users might post only their most flattering

filtered pictures of themselves or fun activities as a form of selective self-presentation. This type of selective presentation can lead to self-comparisons and may influence psychological well-being (Nesi, 2020; Yang et al., 2017). Adolescence is especially prone to social comparisons (Weinstein, 2017). Adolescents may be concerned with how they appear to others while navigating who they feel they are. Many adolescents reach out for connections through social media, and it is possible that the perceived positive or negative responses received, and relationships formed on social media, may affect identity exploration and psychological well-being (Davis & Weinstein, 2017; Shields-Nordness, 2015).

A More Comprehensive Way to Study Social Media Use

When researching internet usage and social media, the most common measures have been frequency and duration (Barry et al., 2017; Primack et al., 2017). Researchers are beginning to study social media use in more complex ways to understand its implications through a more comprehensive approach. Yang et al. (2017) used Erikson's framework to survey 219 college freshmen and examined online social comparison with identity development. Yang et al.'s study found that opinion comparison was associated with better psychological well-being, and that there may be a link between social comparison and identity outcomes. Future recommendations included a larger sample size, information on specific social media platforms, studying those in early adolescence, and continued research on the ways in which social media and social comparison may influence adolescents' identity formation. Granic et al. (2020) suggested that research

move away from studying only "screen time" and begin to explore how and why digital experiences contribute to adolescent development. The current study continued research about time spent on social media but expanded the focus to a variety of different variables to add to this growing body of research.

Relevant Literature

Age of Smartphone and Social Media Usage

Among all gender and ethnic identities, owning a smartphone is nearly universal (Anderson & Jiang, 2018). In 2016, the average age for American children to get their own smartphones was 10.3 years old (Influence-Central.com, 2016). In Canada, one-fourth of fourth graders, which are generally 9-10 years old, had their own smartphone and reported being online regularly on these portable devices (Dyer, 2018). In a study of 16-year-olds and younger, 17% reported using social media at age nine or younger (Martin et al., 2018). While most social media platforms require that those registering for accounts are at least 13 years old, approximately 75% of 10-12-year-olds create social media accounts by falsifying birthday information (McDool et al., 2016). Preteens cannot be officially counted on these platforms since they present as older users (Dyer, 2018).

Time Spent on Social Media

Twenge and Campbell (2018) reported that by the ages of 14-17, adolescents spend 4 hours and 35 minutes on screens. Strickland (2014) reported adolescents spending 3.2 hours per day on social media, and 1 in 5 reporting more than 6 hours per day. Asano (2017) found social media use to be even higher, reporting adolescents

spending up to 9 hours per day online.

Social Media Platforms Used

At least 89% of American adolescents have at least one social media account (Granic et al., 2020), and the average American young adult reported using four different social media platforms (Smith et al., 2018). Each social media platform has a different purpose, such as posting updates, sharing pictures, disappearing photos, videos, and gaming. This could be one reason consumers may use multiple platforms (Smith et al., 2018). Anderson and Jiang (2018) stated that YouTube (85%), Instagram (72%), and Snapchat (69%) are the most frequently used social media by teenagers ages 13-17. The most current research states that 95% of young adults ages 18-24 use YouTube (95%), Instagram (76%) Snapchat (75%) and TikTok (55%; Auxier & Anderson, 2021). Social media platforms continuously update their design as users express the desire for more interactive, digital ways to express their identity (Granic et al., 2020).

Video sharing on content creation platforms consist of TikTok and YouTube. TikTok is a relatively new social media app in the U.S. that utilizes user-generated media, which mainly involves creating and sharing content. TikTok was the most downloaded app in the first quarter of 2018, with 45 million downloads (Omar & Dequan, 2020). Adolescents report using YouTube for entertainment as well as a how-to-guide (Moreau, 2018). Media has changed from simply consuming content, to allowing content creation to be accessible to virtually anyone (Granic et al., 2020). Experts and amateurs alike create videos on sites such as YouTube and TikTok, which are all subject to feedback, criticisms, praise, and people interacting with posts.

Instagram is a photo-based social media platform, providing a platform for cross-lingual communication. Filters are available to those who post on Instagram and are frequently used to portray "perfect" images. Instagram provides a platform for identity exploration, with 53% of Instagrammers reporting that it has helped them discover who they are (Rideout & Rob, 2018). Instagram has a 2,200-character limit when adding verbiage to pictures (Becker, 2016).

Snapchat is a platform frequently used by adolescents in which users directly send pictures to the intended recipient. People enjoy using this platform because it is continuously updated with new interactive photo filters and allows users have direct video chat with others (Sheetz, 2018). On Snapchat, the sender determines how many seconds the message will be visible before it disappears (Vaterlaus et al., 2016).

Facebook users can share pictures, memes, videos, events, and ideas (Granic et al., 2020; Jackson, 2017). Posts on this platform create a storytelling process that might engage those who see the post and foster further elaboration and authentic discussion, a quick "like" or other reaction and acknowledgment, or no reaction from viewers (Granic et al., 2020). The types of responses received compared to the content creator's expected response might influence the emotional well-being of that person. Many studies have focused on the negative implications of Facebook, citing negative comparison and envy. There is evidence for positive experiences as well, with users meeting their communication needs and showing higher levels of psychological well-being over time (Granic et al., 2020).

Gaming platforms include Twitch and Roblox. Twitch is a social media site that

focuses on gaming, with high interaction between streamers and their audience. In 2017, Twitch had 15 million visitors daily (Sjoblom et al., 2018). Roblox is another gaming platform, which allows players to develop their own multiplayer games. There are user-to-user interactions and content sharing via online chatrooms (Guggisberg & Dobozy, 2020).

Pinterest is a social media platform that allows users to "pin" websites using pictures to their "boards" similar to organizing a favorites bar with visual thumbnails (Victor, 2012). Users can make their boards public, follow others, and re-pin others' posts to their own boards. Individuals use Pinterest as social media to discover and share their interests.

Twitter is considered a micro-blogging social media site (Shane-Simpson et al., 2018) and has over 300 million active users per day (Karmakar & Das, 2020). Twitter has become a platform for celebrities and politicians to be perceived as authentic and intimate, in which they can connect with fans while reducing in-person risks (Bond, 2016).

Parent or Caregiver Involvement

Parents and caregivers vary greatly in the way in which they monitor, mediate, or restrict the use of social media usage with their children. Martin et al. (2018) studied 593 middle school students in the U.S. and found that parents of 40% of youth did not monitor their social media usage. This is in line with the Pew Research Center's study in 2015, in which 60% of parents stated they were aware of their teens' social media use (Gao, 2015). In a recent study by the Pew Research Center, research found that 93% of

parents said it is the parent's responsibility to protect children from inappropriate content, with 70% stating they are very confident they know the types of things their children post on social media (Auxier, 2020). In 2018, 54% of teens reported that if parents knew what happened on social media, they would be much more worried about it (Rideout & Robb, 2018). Symons et al. (2020) researched parent's concerns, engagement, and mediation with their adolescents' social media. It was discovered that parents discussing and promoting safe internet use more greatly impacted their adolescents to engage in less risky behavior on social media than setting time limits and rules. In a study by Len-Rios (2015) that examined parental limits placed on social media with their seventh and eighth graders, they found that restrictions did not impact the amount of time these adolescents spent on social media. Daneels and Vanwynsberghe (2017) reported in their research of 10 families, those parents who felt more technically competent used restrictive mediation apps, while other parents used more active mediation and discussion with their children.

Active and Passive Use of Social Media

Active users are creating content including audio, video, or text, and are interacting with others, whereas passive users of social media are defined as those who are observing and reading without creating or engaging (Escobar-Veira et al., 2018). Passive social media use has been linked to lower reports of well-being (Escobar-Veira et al., 2018). Many studies found that it is not simply the use of social media that leads to positive or negative effects, but more specifically the ways in which social media is being used (Batra, 2013; Escobar-Viera et al., 2018; Hussain et al., 2017; Lup et al., 2015). Research has indicated that active or passive engagement on social media should be

considered as it may correlate with psychological well-being (Pornsakulvanich, 2017; Shapiro & Margolin, 2014).

Emotional Connection to Social Media

Emotional connection focuses on the emotional investment one puts into their social media accounts (Bekalu et al., 2019; Woods & Scott, 2016). Bekalu et al. who studied emotional connection to social media in adults found that increased emotional connection to social media was negatively correlated with measures of mental health outcomes and that routine use of social media was positively correlated with mental health. If routine use of social media changes from a convenient form of communication to the preferred method of communication with a preference to avoid in-person contact, it could be problematic for psychological well-being (Cyr et al., 2015). Maree (2017) recommended further research on a more diverse racial representation concerning emotional connection to social media.

Social Comparison and Feedback-Seeking Behaviors

It is an important developmental task for adolescents to develop self-worth and self-esteem, as it is one of the main predictors of psychological well-being (Valkenburg et al., 2017). Because social media usually consists of sharing photos, users may increasingly compare themselves to others. Social comparison is not inherently harmful and can help individuals discover themselves and their identities (Yang et al., 2017). Feedback-seeking is a normal social behavior for many adolescents (Nesi, 2014). Comparisons can be made purposefully or automatically, meaning that the person may

not be aware that they are comparing (Moningka, 2017). It can include actively requesting feedback or passively monitoring while comparing (Posner, 2019).

Online social media platforms allow people to carefully consider and craft how they present themselves, generally only showing the best and most positive aspects of their lives, potentially leading to more unrealistic expectations and comparisons than an in-person encounter (de Calheiros Velozo & Stauder, 2018; Hardy & Castonguay, 2018; Yang et al., 2017). If adolescents perceive themselves as inadequate to portrayed ideals, it may have negative mental health outcomes (Babic et al., 2017; Yang et al., 2017). Nesi (2014) studied social comparison and feedback-seeking behaviors to learn more about selective self-presentation and idealization of others. Nesi's research found that adolescents who engage in high levels of online comparison and feedback-seeking behaviors may experience a skewed awareness of others, which may lead to harmful comparisons and decreases in psychological well-being.

In a study of students between the ages of 18-23, Posner (2019) researched feedback-seeking behaviors in leaders and observers. This research found that African American and Hispanic leaders sought feedback more than other ethnicities, and that females reported higher feedback-seeking behaviors than males. In this context, Posner explains feedback-seeking as a positive characteristic of strong leaders. Feedback-seeking increases an individual's self-awareness and social awareness. When leaders engage in feedback-seeking behaviors, it allows for self-correction and is an important factor in emotional intelligence.

Social Media Use and Psychological Well-Being

Much of the research is contradictory, and researchers cannot establish agreed-upon relationships between social media use and psychological well-being. If there are such relationships, it is likely to both positively and negatively affect mental health and social connections (Pea et al., 2012). Some studies find associations between social media and low psychological well-being (Babic et al., 2017; Barry et al., 2017; Tromholt, 2016; Twenge & Campbell, 2018), while others find mixed effects (Cocorada et al., 2018), or no statistically significant associations (Orben & Przybylski, 2019). Many researchers have found positive associations with adolescents' social media use (Dogun, 2016; Guinta & John, 2018; Nabi et al., 2013; Pornsakulvanich, 2017; Shapiro & Margolin, 2014; Valkenburg et al., 2017).

In a study by Pew Research, 31% of adolescents believe that social media use has a positive impact on their well-being; reasons include keeping in touch, connecting with people of similar interests, entertaining, expressing oneself, getting support from others, and learning new things (Anderson & Jiang, 2018). Radovic et al. (2017) states that adolescents use social media to explore their identity, experience independence, gain social support, connect with others, and seek acceptance. Other potential positive impacts on psychological well-being include providing adolescents with a sense of emotional support, receiving likes on their posts, supporting comments, or finding a community experiencing similar issues (Nabi et al., 2013; Pornsakulvanich, 2017; Shapiro & Margolin, 2014). Social media provides online forums of support networks to those who have had difficulty finding support in their geographical communities (Gabriele-Black &

Goldberg, 2019; Shaprio & Margolin, 2014). Social media usage could fulfill the need for connection, yet with high usage levels, adolescents' awareness of missing out may intensify and decrease the feeling of connection, belonging, and well-being (Oberst et al., 2016). Adolescents' perceptions that they do not live up to social media expectations may decrease psychological well-being (Barry et al., 2017). It has not been determined if psychological well-being measures are a result or precursor of youth's engagement of social media experiences (Barry et al., 2017; Twenge & Campbell, 2018).

Researchers who have used the Psychological Well-Being Flourishing Scale have also measured recreational screen time and use of social networking sites. Babic et al. (2017) researched 322 adolescents in 7th grade in Catholic secondary schools in Australia and reported that an increase in the adolescent's recreational screen time was negatively associated with psychological well-being. In a study of 459 high school students in Turkey, Dogun (2016) found that social media usage is positively related to psychological well-being; as the use of social networks increased, the psychological well-being of these students increased as well.

Gender and Social Media Usage

Researchers Orben and Przybylski (2019) and Thelwall and Vis (2017) stated the need for further research exploring social media and gender. Twenge and Martin (2020) reported the differences of use of social media between male and females, in which they reported lower psychological well-being for females who spent high amounts of time on digital media. Research has reported that females use social media more than males (Anderson & Jiang, 2018; Twenge & Martin, 2020). In 2015, research on adults stated

that 68% of females have social media accounts, and 62% of males (Perrin, 2015). Martin et al. (2018) found that females are more likely to get social media accounts earlier than males, with females (M = 10.81, SD = 1.27) in comparison to males (M = 11.24, SD = 1.57). Some studies have found that males reported more gaming (Cocorada et al., 2018; Mayudia et al., 2013; Paschke et al., 2021; Twenge & Martin, 2020), while another identified YouTube as the preferred platform for both males and females (Anderson & Jiang, 2018). Some research has found that adolescent females reported using photo-sharing social media sites such as Snapchat and Instagram more frequently than males (Anderson & Jiang, 2018; Lenhart, 2015). A recent study by Pew Research found that 46% of females use Pinterest, and only 16% of males (Auxier & Anderson, 2021). Alternatively, in a study of 8- to 12-year-olds, Blackwell et al. (2014) found no significant difference in preference of social media platforms between gender. Nesi (2014) found that girls are more likely to engage in social comparison and feedback-seeking behaviors.

Sandra Bem introduced the gender schema theory in 1981, discussing how children are gendered from a young age, and pioneered the concept of androgyny, or nonbinary, meaning neither gender (Starr & Zurbriggen, 2017). There has been an increased understanding and acceptance of nonbinary or non-gender as self-identification. As society begins to include and acknowledge individuals who identify with this option, it is important to respect and integrate this category into research to better understand all individuals (Richards et al., 2016).

Race and Ethnicity and Social Media Usage

Race is defined in Merriam-Webster dictionary as "any one of the groups that humans are often divided into based on physical traits regarded as common among people of shared ancestry" and ethnicity is defined as "affiliation or group" with synonyms including race and nationality. This study aims to capture similarities and differences within cultures or ethnicities, rather than race of those with similar physical traits or ancestry. As such, the common terms of race or ethnicity will be referred to as ethnic identity as a self-identifier (Harris et al., 2017). Participants were allowed to choose more than one ethnic identity in this research study.

Pew Research reported in 2015 that there were no notable differences in the use of social media sites between ethnic groups, with 65% of whites, 65% of Hispanics, and 56% of blacks using social media (Perrin, 2015). Yet in 2018, Pew Research stated that white teens are more likely to use Snapchat, and black teens are more likely to use Facebook. In 2018 the most popular social media platform among whites, blacks, and Hispanics was YouTube (Anderson & Jiang, 2018). Furthermore, in 2021, Pew Research reported that Hispanic and Black Americans are more likely to use Instagram than White Americans (Auxier & Anderson, 2021). In a study of 1,027 adults in the U.S., Bekalu et al. (2019) found that social media use did not vary significantly between racial groups, but that emotional connection to social media varied by racial identity. This research showed that White Americans had the least emotional connection to social media, and Hispanics had the highest emotional connection.

Ethnic identity exploration is part of human development. The internet and social

media have given a platform for individuals to connect with others and research culture (Purgason et al., 2020). Those who participate in identity exploration may also experience discrimination, marginalization, and microaggressions, influencing their experience of social media and psychological well-being. Yet having a strong ethnic identity can add resilience and is linked to positive psychological well-being (Purgason et al., 2020). This is particularly true for adolescents of color who may be confronted with negative race-related interactions that can lead them to question their race and ethnic identity (Buckley, 2018). Ethnic identity and experiences may impact psychological well-being (Martinez & Dukes, 1997). Race and well-being have been researched in many various contexts other than social media use (Blaine & Crocker, 1995; Blankenship et al., 2018; Cichy et al, 2014; Iwamoto & Liu, 2010; Martinez & Dukes, 1997; McLeod & Owens, 2004; Vedder et al., 2005). The researcher has identified a gap in the literature as an opportunity to look at the relationships between social media usage, ethnic identity, and psychological well-being.

Intersectionality

There has been an increase of interest concerning race and gender-related influences on adolescent development and adjustment (Dill-Shackleford et al., 2017). In particular, the intersection of race and gender accounts for much of the variation in school experience and behavior. Race and gender are wide-ranging social identity groups that are often perceived to be predictors of a person's characteristics and behaviors. Researchers are noticing the importance of recognizing that multiple identities influence outcomes. Human development is formed by interactions and experiences within a social

context that has meaning for identity formation and coping (Dill-Shackleford et al.,

2017). Researchers should expect different outcomes for marginalized as compared to

privileged groups (Buckley, 2018). Gender is socially constructed by racial, ethnic, and

cultural influences (Kennedy, 2019). Scholars often assert that establishing gender

identity is one of the significant developmental tasks of adolescence that impacts self-

concept, and adolescence is a critical time of ego identity formation (Buckley, 2018;

Erikson, 1950; Harris et al., 2017). Awareness of one's race and ethnic identity

development emerges in childhood and intensifies through adolescence (Harris et al.,

2017). Researchers McLeod and Owens (2004) found that gender and ethnic identity

influence psychological well-being during the transition of adolescence.

Conceptual Model

Based on the theoretical framework and literature review, a conceptual model (see

Figure 1) was created to examine the factors influencing adolescent's psychological well-

being. The social media usage attributes consist of (1) age of access to their own

smartphone, (2) age of first social media account, (3) time spent on social media, (4)

number of platforms used, (5) frequency of platforms used, (6) active or passive use, (7)

parental monitoring, and (8) emotional connection or routine use. Online comparison and

feedback-seeking behavior, gender identity, and ethnic identity are independent variables

as well. The dependent variable is psychological well-being.

Figure 1

Proposed Conceptual Model of Attributes Measured in Relationship to Psychological Well-Being


```
┌──────────────────────────────┐
│ Demographics                 │
│  • Gender identity           │
│  • Ethnic identity           │
└──────────────────────────────┘

┌──────────────────────────────┐
│ Social media use attributes  │
│  • Age of access to their    │
│    own phone                 │
│  • Age of first social media │
│    account                   │               ┌──────────────┐
│  • Time spent on social      │               │ Psychological│
│    media                     │    ───────►   │ well-being   │
│  • Number of platforms used  │               │              │
│  • Frequency of platforms    │               └──────────────┘
│    used                      │
│  • Active or passive use     │
│  • Parental monitoring       │
│  • Emotional connection or   │
│    routine use               │
└──────────────────────────────┘

┌──────────────────────────────┐
│ Identity exploration         │
│ Online comparison and        │
│ feedback seeking behavior    │
└──────────────────────────────┘
```
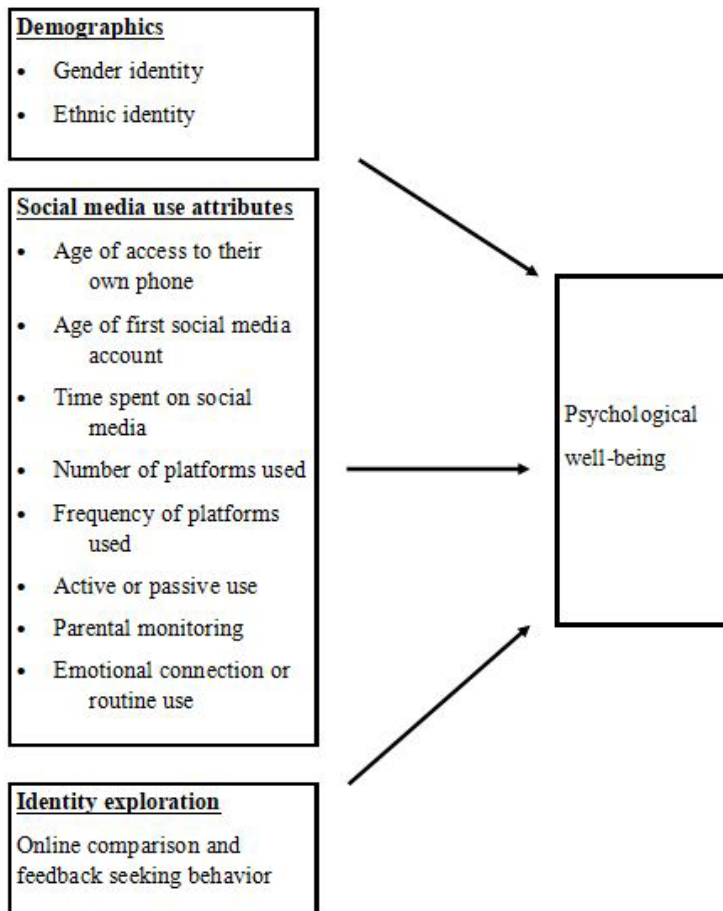
Summary

Youth in the U.S. are obtaining access to smartphones and social media at increasingly younger ages (Dyer, 2018; Martin et al., 2018). Social media use continues to grow as a way to socially connect, and society is learning how to adapt (eMarketer, 2018). Adolescents are charged with the developmental tasks of exploring their identity and navigating social comparisons on social media (Weinstein, 2017). Social media has

the potential to have positive and negative outcomes on psychological well-being, and how adolescents use social media will impact their experiences differently. As technology and social media become an increasing part of daily interactions, research must consider how this change in communication may affect psychological well-being (Pea et al., 2012). Using Erik Erikson's human development framework, research in these areas supports adolescents on how to move through and master their identity development psychosocial stage for healthy adulthood and well-being (Batra, 2013).

CHAPTER III

PROCEDURES

This descriptive study investigated the relationships between gender identity, ethnic identity, social media use, online connection and feedback-seeking behaviors, and psychological well-being of adolescents. The study's results provide Extension professionals, mental health providers, and parents or caregivers a framework of topics to have open communication concerning social media and for guidelines on how to help adolescents manage and navigate their screen time in a way that may support their psychological well-being. The following research objectives guided this study:

1. Describe adolescents' social media use.

2. Identify adolescents' online comparison and feedback-seeking behavior when using social media.

3. Describe the adolescents' psychological well-being.

4. Investigate the relationships between gender identity, ethnic identity, social media use, online comparison and feedback-seeking behavior, and psychological well-being.

Research Design

This descriptive study used an online survey, created in Qualtrics and administered by Centiment to collect data. The researcher measured social media use, social comparison and feedback-seeking behaviors, psychological well-being, gender identity, and ethnic identity, then assessed relationships. The disadvantages of an internet survey were considered. Participants may provide inaccurate or misleading information,

including information that they think is the socially acceptable answer. The overabundance of surveys may lead to questionnaire fatigue and failure to read the questions thoroughly and answer thoughtfully. The use of an online questionnaire assumes shared meaning and definitions, and the wording of the survey might influence responses. A high-quality survey has been developed with these disadvantages in mind to counter the negative effects as much as possible. The advantages of an internet survey are superior for this study and outweigh the disadvantages. The low cost of an internet questionnaire and the accessibility of data collection for this nationwide study dictated that an internet survey be the best choice for the purposes of this study (Wimmer & Dominick, 2014).

Population and Sample Size

Pew Research has conducted their research on adolescents and social media using the age range of 13- to 17-year-olds (Anderson & Jiang, 2018). Thirteen is the lower age limit for social media services to create an account and access their services (Auxier et al., 2020). Therefore, the researcher has selected adolescents between the ages of 13-17 who reside in the U.S. for the population of this study to be able to compare results to current research. To obtain an accurate sample size, the population size of 25.2 million adolescents between the ages of 12-17 living in the U.S. in 2020 was used to calculate the number of participants (Childstats.gov, 2020). The population size, as well as the number of factors used in the regression model, determined a sample size of 384 adolescents for the actual survey and 37 adolescents for the pilot test. This sample size yields a margin of

error of .05 and confidence interval of 95% (Bartlett et al., 2001). Participants were recruited voluntarily by Centiment, an accredited marketing research and survey company. Centiment collects profile information from their panelists when they first sign on to the survey platform. This profile information is used to prequalify participants for this study. Securing a large sample size controlled for selection error and sampling error.

Non-probability sampling using an opt-in panel selected participants for this study. Opt-in panels use participants that have already agreed to take part in a survey. The panels do not allow each person within the population the same probability of being chosen (Baker et al., 2013). Those who are contacted by Centiment would most likely have access to the internet and an internet-capable device. Centiment uses various incentives to gain participants for their panels and studies.

Instrumentation

A researcher-developed survey (see the Appendix), adapted from past literature, was administered online. The front matter of the survey included consent and assent forms, informing participants of the purpose of the study, procedures, risks, confidentiality, benefits, explanation and offered to answer questions, explain compensation, voluntary participation, an Institutional Review Board approval statement, and investigator statement. Participants responded to a question that certifies that they have read the assent form and agree to participate in the survey. The participants selected: (a) "Yes, I am between the ages of 13-17, and I agree to participate in this study;" OR (b) "No, I am not between the ages of 13-17, and I do not agree to participate in this study."

If participants certified that they agree to participate in the study, they were directed to the survey questions. If they chose not to participate in the survey, they were directed to the end of the survey.

The first section focused on social media usage, which includes several measures: when adolescents had access to their own phone and social media accounts, perceived time spent asked in hours and minutes per day, which social media platforms are being used and how frequently, parental mediation, active and passive use, and emotional connection or routine use. The first three questions related to ages in which adolescents obtained access to their own phone (Dyer, 2018), social media accounts (Dyer, 2018; Martin et al., 2018; McDool et al., 2016), and how much recreational screen time they spend on their phone (Anderson & Jiang, 2018; Asano, 2017; Strickland, 2014; Twenge & Campbell, 2018). The next question asked which social media platforms they use and to specify the frequency of use on a 9-point Likert scale anchored at "I don't use this platform" to "40 hours or more" (Twenge & Martin, 2020).

The researcher used the Factor Structure and Scale Development of Passive and Active Social Media Use to identify passive or active usage. The original construct used by Escobar-Viera et al. (2018) consisted of 7 items on a 5-point Likert scale, anchored at "several times a day" to "never." However, it recommended that future research remove the question regarding "liking another person's post," so the researcher removed that item. The question asked, "How often do you engage in the following behaviors on any social media platform on a typical day?" Items that indicate active use include "Share other's content," "Comment on, or respond to someone else's content," and "Post your

own content." Questions that indicate passive use include "Read discussions," "Read comments/reviews," or "Watch videos or view pictures."

A series of questions examined parental monitoring to distinguish if parents are using active mediation or restrictive mediation when setting and enforcing rules around social media usage. Active mediation questions include "How frequently do your parents remind you not to give out personal information on social media,"? "How frequently do your parents tell you to stop any experience on social media if you feel uncomfortable or scared,"? and "How frequently do your parents explain to you about the dangers of social media?" Restrictive mediation questions include "How frequently do your parents restrict the type of social media platforms you can visit,"? "How frequently do your parents set rules regarding your access to social media, such as Facebook, Twitter, YouTube, Instagram, etc.,"? "How frequently do your parents limit the kind of activities you can do on social media,"? "How frequently do your parents restrict the amount of time you can use social media,"? and "How frequently do your parents limit you to using social media only for schoolwork,"? This was measured on a 7-point Likert anchored at "not at all" and "very frequently." The Cronbach's alpha reliability for active mediation was .87 and for restrictive mediation was .89 (Ho et al., 2019).

The next question was an attention check question to ensure that participants were reading the questions and answering truthfully. This question stated, "To show that you are paying attention, please select only the "None of the above" option as your answer." The possible answers included "Excited," "Strong," "Guilty," "Enthusiastic," "None of the above." If respondents answered anything other than "None of the above," the survey

ended, and their responses were not included in the analysis.

To identify active and passive use, the researcher used the Factor Structure and Scale Development of Passive and Active Social Media Use. The original construct used by Escobar-Viera et al., (2018) consisted of 7 items on a 5-point Likert scale, anchored at "several times a day" to "never" however, it recommended that future research remove the question regarding "liking another person's post," so the researcher removed that item. The question asked, "How often do you engage in the following behaviors on any social media platform on a typical day?" Items that indicate active use include "Share other's content," "Comment on, or respond to someone else's content," and "Post your own content." Questions that indicate passive use include "Read discussions," "Read comments/reviews," or "Watch videos or view pictures." Cronbach's alphas were reported for active use as .80 and for passive use as .72 (Escobar-Viera et al., 2018).

The researcher adapted Jenkins-Guarnieri et al.'s (2013) Social Media Use Integration Scale to measure the emotional connection and daily routines of social media users. The 4-item Integration into Social Routines (ISR) subscale focuses on routine use, and the 6-item Social Integration and Emotional Connection (SIEC) subscale focuses on emotional connection. Some item examples from the ISR subscale include "Using social media is part of my everyday routine" and "I respond to content that others share using social media." Some examples of items from the SIEC subscale include "I feel disconnected from friends when I have not logged into social media" and "I prefer to communicate with others mainly through social media." The statement "I don't like social media." was reverse coded for this construct. These subscales were measured on a

6-point Likert-scale anchored from "strongly disagree" to "strongly agree." Cronbach's alpha reliabilities were .92 for the total scale, .90 for the SIEC subscale, and .84 for the ISR subscale (Bekalu et al., 2019).

In section two, the Motivations for Electronic Interaction Scale's Comparison and Feedback-Seeking subscale were presented as 10 items on a 5-point Likert scale anchored from "not at all true" to "extremely true." This scale assessed social comparison and feedback-seeking behaviors and asked questions such as "I use social media… to check out the way others look; to get feedback from others on the things I send/post; to see what others think about my photos" (Lup et al., 2015; Nesi, 2014; Weinstein, 2017). The subscale had a Cronbach's alpha of .92 (Nesi, 2014). The mean score was calculated, with higher scores indicating higher levels of social comparison and feedback-seeking behaviors.

The third section explored psychological well-being measures using the Psychological Well-Being Flourishing Scale, which consists of eight questions on a 7-point Likert scale anchored from "strongly agree" to "strongly disagree." The construct measures participants' well-being based on self-perceived success in relationships, self-esteem, meaning, purpose, and optimism (Babic et al., 2017; Dogun, 2016). The range of scores are from 8 to 56, with a high score representing a person with many psychological resources and strengths (Diener et al., 2010). Cronbach's alpha reliability calculated from this scale's data was .80 (Dogun, 2016).

The next questions asked for the participant's age, gender identity (Orben & Przybylski, 2019; Schonning et al., 2020; Thelwall & Vis, 2017), ethnic identity (Harris

et al., 2017), and state of residence.

Validity

A panel of three experts comprised of faculty at Utah State University reviewed the items in the questionnaire to determine face and content validity. Panel members have expertise in agricultural communication, social media usage, family and consumer science education, and survey methodology.

Reliability

A soft launch of the questionnaire, similar to a pilot study, was administered to ensure the questionnaire worked properly and allowed the researcher to revise the instrument before the final questionnaire was administered. There were 37 respondents in the pilot study. For the final survey, there were 440 total responses, and 409 usable responses that were included in the statistical analysis. All data were analyzed using the Statistical Package for the Social Sciences (SPSS) 26.0. Cronbach's alpha (α) was used to determine the reliability of Likert-type scale items. Cronbach (1951) found α to be a measure of internal consistency by averaging the correlations of all possible split-half reliabilities of the construct. A high α means the average correlation is high, and the scale of the construct is reliable. An α greater than .90 is highly reliable, and scores between .70 and .89 are acceptable to use. A construct should be reevaluated if an α is below .70. The Cronbach's alpha for the pilot study's constructs ranged from .64 to .93 (Table 1). The three items measuring passive use had a Cronbach's alpha of .64, and the statement

"watch videos or view pictures" was removed to increase the actual survey's Cronbach's alpha to .72. Routine use excluded from the actual survey. The Cronbach's alphas for the actual survey ranged from .70 to .91, which were acceptable.

Table 1

Cronbach's Alpha Coefficients for Constructs with Likert-Scale Items

	Reliability coefficient	
Construct	Pilot test	Actual survey
Parental involvement- mediation	.80	.85
Parental involvement- restriction	.88	.91
Active use	.67	.70
Passive use	.64	.72
Routine use	.68	---
Emotional connection	.79	.80
Comparison & feedback-seeking	.93	.91
Psychological well-being	.81	.85

Data Collection

Prior to data collection, the university's Institutional Review Board approved the study, then Centiment sent a recruitment message with the questionnaire as an anonymous link to the selected panel of participants. Centiment incentivizes individuals to answer surveys. For participation in this research study, participants received $5 according to the terms agreed upon when entering into the survey with the panel company (i.e., Centiment).

Data Analysis

Data were analyzed using SPSS 26.0. Demographics for age, gender identity, and ethnic identity were reported to describe the respondents. The literature review guided the reporting of social media use by gender identity, ethnicity identity, or both identities. For research objective one, frequency and percentage statistics described the (1) age respondents had access to their own phone, (2) age respondents got their first social media account, and (3) use of specific social media platforms. From the data about time spent on specific social media apps and gaming sites, the researcher calculated the number of social media platforms used and the frequency and percentage of respondents using each platform. Measures of central tendency and variability described (1) how much time they spend on recreational screen time on their phone, (2) parental monitoring, and (3) emotional connection. Three one-way ANOVAs were conducted to detect any differences within ethnic identities for parental mediation, parental restriction, and emotional connection.

Research objective two reported the mean and standard deviation for online comparison and feedback-seeking behavior by ethnic identity. Two one-way ANOVAs determined if online comparison and feedback-seeking behavior was different among the ethnic identities and gender identities. Research objective three reported the summated score, standard deviation, and range for the Psychological Well-Being Flourishing Scale by ethnic identity and gender identity. Two one-way ANOVAs determined if psychological well-being was different among the gender identities and ethnic identities, respectively. Research objective four used a hierarchical multiple regression to

investigate the relationships between gender identity, ethnic identity, social media use, online comparison and feedback-seeking behavior, and psychological well-being.

Summary

For this descriptive research study, an online survey was administered to collect data from adolescents between the ages of 13-17 years old in the U.S. The research objectives describe and investigate the relationships between gender identity, ethnic identity, social media use, online comparison and feedback-seeking behaviors, and psychological well-being of adolescents. Once responses had been collected, data was analyzed using SPSS 26.0. This research will guide Extension professionals, mental health providers, and parents or caregivers by increasing awareness of potentially positive and negative associations of social media use and provide insight into guiding conversations with youth on how to use social media in ways that may support positive psychological well-being.

CHAPTER IV

RESULTS

The purpose of this study was to describe and investigate the relationships between gender identity, ethnic identity, social media use, online connection and feedback-seeking behaviors, and psychological well-being of adolescents. This study used Erik Erikson's theory of psychosocial development as a framework to explore relationships with the way in which adolescents use social media during their identity development stage which impacts their overall psychological well-being. The total number of responses was 440. The total number of responses that were used in the statistical analysis was 409 after removing respondents who did not complete the survey, disagreed that they were between the ages of 13-17 or to participate in the study, or did not answer the attention check question correctly. Most respondents were female (n = 234, 57.2%), followed by male (n = 158, 38.6%), and nonbinary/other (n = 17, 4.2%). Ethnic identity reported for this study included white (n = 205, 50.1%), Black American (n = 104, 25.4%), Hispanic or Latinx (n = 94, 23.0%), Asian American or Pacific Islander (n = 36, 8.8%), Native American or Native Alaskan (n = 14, 3.4%), or other (n = 28, 6.8%). Respondents could select more than one ethnic identity. Adolescents within the ages of 13-17 were invited to participate in the study. The ages of respondents were the following: 13 (n = 16, 3.9%), 14 (n = 15, 3.7%), 15 (n = 24, 5.9%), 16 (n = 165, 40.3%), and 17 (n = 189, 46.2%). Participants were required to live in the U.S. for the purpose of this study, and they were asked to verify which state they reside.

Objective One: Describe Adolescents' Social Media Use

Frequency and percentage were reported for the age in which respondents became the primary user/owner of a smartphone. The mode was 13 years old for females ($n = 44$, 10.8%) and males ($n = 37$, 9%). Nonbinary/other highest modes were 9 ($n = 3$, 0.7%) and 11 ($n = 3$, 0.7%). Table 2 illustrates the age in which respondents were the primary user of their own smartphone, presented by gender.

Table 2

Age Respondents Got Their Own Smartphone by Gender

	Female		Male		Nonbinary/other	
Age	*n*	%	*n*	%	*n*	%
Less than 8 years old	10	2.4	9	2.2	2	0.5
8	14	3.4	4	1.0	1	0.2
9	4	1.0	9	2.2	3	0.7
10	37	9.0	14	3.4	2	0.5
11	23	5.6	8	2.0	3	0.7
12	37	9.0	28	6.8	2	0.5
13	44	10.8	37	9.0	1	0.2
14	28	6.8	22	5.4	2	0.5
15	17	4.2	10	2.4	0	0.0
16	12	2.9	9	2.2	0	0.0
17	8	2.0	8	2.0	1	0.2

Females had the highest frequency of getting their first social media account at ages 12 ($n = 49$, 12.0%) and 13 years old ($n = 49$, 12.0%). The highest frequency for males was 13 years old ($n = 38$, 9.3%), and nonbinary/other was 12 ($n = 7$, 1.7%) years old. Table 3 presents these findings by gender.

Table 3

Age Respondents Got a Social Media Account by Gender

	Female		Male		Nonbinary/other	
Age	*n*	%	*n*	%	*n*	%
Less than 8 years old	3	0.7	5	1.2	0	0.0
8	16	3.9	3	0.7	2	0.5
9	11	2.7	7	1.7	2	0.5
10	32	7.8	9	2.2	2	0.5
11	22	5.4	14	3.4	1	0.2
12	49	12.0	25	6.1	7	1.7
13	49	12.0	38	9.3	2	0.5
14	26	6.4	28	6.8	0	0.0
15	16	3.9	19	4.6	1	0.2
16	6	1.5	6	1.5	0	0.0
17	4	1.0	4	1.0	0	0.0

Respondents identifying as nonbinary/other spent 8.45 hours per day on recreational screen-time on a smartphone, the most of any demographic researched, followed by females, then males. It was found that respondents who identify as white had lower recreational screen time on their phones compared to other ethnicities. The ethnicity with the widest range of time was those who identify as Black American. Black American, Hispanic or Latinx, and white, all had at least one respondent report that on average, they do not engage in recreational screen time. These findings are reported in hours per day and can be found in Table 4.

As shown in Table 5, all of the gender identities used YouTube more than any other platform. Instagram was the second most commonly used platform by both males and females. Females visited Pinterest more than males and nonbinary/other, and males visited Twitch more than females and nonbinary/other.

Table 4

Recreational Screen-Time on Phone by Gender and Ethnic Identities

	Screen-time		
Identity	*M*	*SD*	Range
Gender			
Female	7.06	3.54	0.00-19.00
Male	6.23	3.38	0.00-17.00
Nonbinary/other	8.45	4.40	2.00-17.00
Ethnicity			
Asian American or Pacific Islander	7.42	3.54	2.00-17.00
Black American	7.74	3.87	0.00-19.00
Hispanic or Latinx	7.24	3.42	0.00-17.00
Native American or Alaskan Native	7.74	4.35	2.00-17.00
White	6.29	3.41	0.00-18.00

Table 5

Use of Social Media Platforms by Gender Identity

	Female		Male		Nonbinary/other	
Platform	*n*	*%*	*n*	*%*	*n*	*%*
YouTube	220	56.7	153	39.4	15	3.9
Instagram	202	59.8	124	36.7	12	3.5
TikTok	195	63.9	96	31.5	14	4.6
Snapchat	188	63.3	96	32.3	13	4.4
Pinterest	126	73.7	36	21.1	9	5.3
Roblox	83	56.1	60	40.5	5	3.4
Facebook	78	54.2	59	41.0	7	4.9
Twitter	79	52.7	64	42.7	7	4.7
Twitch	33	29.4	75	67.0	4	3.6

As seen in Table 6, YouTube was reported as the most frequently visited social media or gaming sites among all ethnic identities researched. The second most frequently used for Asian American or Pacific Islander, Hispanic or Latinx, and white was Instagram, and for Black American and Native American or Native Alaskan was TikTok.

Table 6

Use of Social Media Platforms by Ethnic Identity

Platform	Asian American or Pacific Islander		Black American		Hispanic or Latinx		Native American or Native Alaskan		White	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
YouTube	36	9.3	101	26.0	89	22.9	14	3.6	191	49.2
Instagram	29	8.6	86	25.4	80	23.7	12	3.6	164	48.5
TikTok	24	7.9	90	29.5	74	24.3	13	0.9	141	46.2
Snapchat	25	8.4	82	27.6	68	22.9	10	3.4	142	47.8
Pinterest	14	8.2	48	28.1	42	24.6	5	2.9	82	48.0
Roblox	14	9.5	47	31.8	41	27.7	4	2.7	57	38.5
Facebook	7	4.9	34	23.6	30	20.8	6	4.1	78	54.2
Twitter	17	11.3	36	24.0	48	32.0	7	4.7	63	42.0
Twitch	17	15.2	25	22.3	31	27.7	4	3.6	50	44.7

Note. Participants could select more than 1 ethnic identity.

Active and passive use of social media were reported by gender and ethnicity identity and are presented in Table 7. Respondents were asked how often they engage in certain behaviors on social media. The true limits on this Likert-type scale are as follows 1.00-1.49 = *never,* 1.50-2.49 = *sometimes*, 2.50-3.49 = *about half of the time*, 3.50-4.49 = *most of the time*, and 4.50-5.00 = *several times a day*. Nonbinary showed the most active use, while Asian American or Pacific Islander used social media more passively.

Table 8 shows parental monitoring, by mediation and restriction, presented by gender identity and ethnic identity. Males ($M = 2.55$, $SD = 1.73$) and females ($M = 2.56$,

Table 7

Active and Passive Use by Gender and Ethnic Identity

Identity	Active use		Passive use	
	M	*SD*	*M*	*SD*
Gender identity				
Female	2.39	0.90	2.83	1.18
Male	2.28	1.02	2.76	1.24
Nonbinary/other	2.80	1.50	2.62	1.61
Ethnic identity				
Asian American or Pacific Islander	2.34	0.92	3.14	1.29
Black American	2.49	0.96	2.85	1.25
Hispanic or Latinx	2.37	0.93	2.80	1.12
Native American or Alaskan Native	2.33	0.75	3.08	0.98
White	2.35	1.01	2.75	1.24

Table 8

Parental Monitoring Strategy by Gender and Ethnic Identities

Identity	Mediation		Restriction	
	M	*SD*	*M*	*SD*
Gender identity				
Female	3.85	1.68	2.56	1.63
Male	2.97	1.68	2.55	1.73
Nonbinary/other	2.90	1.85	1.96	0.97
Ethnic Identity				
Asian American or Pacific Islander	3.36	1.99	2.46	1.75
Black American	3.51	1.59	2.45	1.60
Hispanic or Latinx	3.64	1.66	2.47	1.45
Native American or Alaskan Native	4.33	1.59	3.17	1.98
White	3.48	1.81	2.60	1.75

SD = 1.63) perceived having their primary caregiver occasionally use parental restriction as compared to nonbinary/other respondents who perceived their primary caregiver as rarely using restriction strategies (*M* = 1.96, *SD* = 0.97). Native American and Alaskan Native respondents perceived that their primary caregiver sometimes used parental mediation (*M* = 4.33, *SD* = 1.59) or occasionally used restriction (*M* = 3.17, *SD* = 1.98) strategies. The true limits on this 7-point Likert-type scale are as follows 1.00-1.49 = *not at all*, 1.50-2.49 = *rarely*, 2.50-3.49 = *occasionally* 3.50-4.49 = *sometimes*, and 4.50-5.49 = *frequently,* 5.50-6.49 = *usually,* 6.49-7.00 = *very frequently.*

Participants were classified into four ethnic identities: white (*n* = 157), black (*n* = 82), Hispanic (*n* = 63), and other (*n* = 107). A one-way ANOVA was conducted to detect a difference in demographics for parental mediation for ethnic identities. There were no statistically significant differences in parental mediation among the different ethnic identities, $F(3, 405) = .33$, $p = .807$. A one-way ANOVA was conducted to detect a difference in demographics for parental restriction for ethnic identities. There were no statistically significant differences in parental restriction between the different ethnic identities, $F(3, 405) = 0.10$, $p = .960$.

Findings on connection to social media were reported by ethnicity and can be found in Table 9. The true limits on this Likert-type scale are as follows 1.00-1.49 = *strongly disagree*, 1.50-2.49 = *somewhat disagree*, 2.50-3.49 = *neither agree nor disagree*, 3.50-4.49 = *somewhat agree*, and 4.50-5.00 = *strongly agree*. All ethnic identities were neutral about their emotional connection to social media.

A one-way ANOVA was conducted to find difference between ethnic identities

Table 9

Emotional Connection by Ethnic Identity

	Emotional connection	
Identity	*M*	*SD*
Asian American or Pacific Islander	3.14	0.86
Black American	3.24	0.62
Hispanic or Latinx	2.98	0.85
Native American or Alaskan Native	3.24	0.62
White	3.14	0.86

on emotional connection. Participants were classified into four groups: white ($n = 157$), black ($n = 82$), Hispanic ($n = 63$), and other ($n = 107$). There were no statistically significant differences in emotional connection between the different ethnic groups, $F(3, 405) = 1.94$, $p = .122$.

Objective Two: Identify Adolescents' Online Comparison and Feedback Seeking Behavior

The researcher described adolescents' online comparison and feedback-seeking behavior by gender and ethnicity, as shown in Table 10. The true limits on this Likert-type scale were 1.00-1.49 = *not at all true*, 1.50-2.49 = *a little bit true*, 2.50-3.49 = *somewhat true*, 3.50-4.49 = *very true*, and 4.50-5.00 = *extremely true*. It was somewhat true that respondents who identify as nonbinary or other have engaged in online comparison ($M = 2.54$, $SD = 1.06$). Asian American and Pacific Islanders were the only ethnic identity that reported it was somewhat true they compared themselves to their peers ($M = 2.56$, $SD = 1.14$), while all others reported it was not at all true.

A one-way ANOVA was conducted to detect a difference in online comparison

Table 10

Online Comparison and Feedback-seeking Behavior by Gender and Ethnic Identities

	Online comparison	
Identity	*M*	*SD*
Gender Identity		
Female	2.45	1.00
Male	2.29	1.05
Nonbinary/other	2.54	1.06
Ethnic Identity		
Asian American or Pacific Islander	2.56	1.14
Black American	2.39	1.06
Hispanic or Latinx	2.36	0.96
Native American or Alaskan Native	2.33	0.83
White	2.39	1.02

and feedback-seeking behavior among gender identities. Participants were classified into three gender identities: female (n = 234), male (n = 158), and nonbinary/other (n = 17). There was homogeneity of variances, as assessed by Levene's test for equality of variances (p = .518). There were no statistically significant differences in online comparison and feedback-seeking behavior among the different gender identities, $F(2, 406)$ = 1.33, p = .266.

A one-way ANOVA was conducted to determine if online comparison and feedback-seeking behavior was different for ethnic groups. Participants were classified into four groups: white (n = 157), black (n = 82), Hispanic (n = 63), and other (n = 107). Other includes respondents who identified as Asian American or Pacific Islander, Native American or Alaskan Native, multi-racial, and other. There was homogeneity of variances, as assessed by Levene's test for equality of variances (p = .914). There were no statistically significant differences in online comparison and feedback-seeking

behavior between the different ethnic groups, $F(3, 405) = 0.08$, $p = .972$.

Objective Three: Describe the Adolescents' Psychological Well-Being

To assess psychological well-being, this construct asked eight questions that were summated for a score ranging between 8 (minimum) and 56 (maximum), with higher scores representing higher levels of psychological well-being. For psychological well-being, female respondents had a summated score of 40.55 ($SD = 8.25$), ranging from 18 to 56. Male respondents reported a summated score of 40.13 ($SD = 8.99$), ranging from 8 to 56. Respondents identifying as nonbinary or other reported a summated score of 37.24 ($SD = 10.84$) with a range between 8 and 53.

The highest summated score of the ethnicities was white, with a score of 41.01 ($SD = 9.25$; see Table 11). White, Black American, and Hispanic or Latinx had respondents with the highest score possible for psychological well-being. The lowest summated score was from the Native American or Alaskan Native ethnicity, reported at 37.92 ($SD = 8.90$).

Two one-way ANOVAs were conducted to determine if psychological well-being

Table 11

Psychological Well-Being by Ethnic Identity

	Well-being		
Identity	Score	SD	Range
Asian American or Pacific Islander	39.81	8.86	8-55
Black American	40.03	8.07	19-56
Hispanic or Latinx	39.34	7.79	19-56
Native American or Alaskan Native	37.92	8.90	14-51
White	41.01	9.25	8-56

was different for gender identities and ethnic identities. The differences between identities were not statistically significant for gender, $F(2, 407) = 1.19$, $p = .306$. Participants were classified into four ethnic groups: white ($n = 157$), black ($n = 82$), Hispanic ($n = 63$), and other ($n = 107$). Other includes respondents who identified as Asian American or Pacific Islander, Native American or Alaskan Native, multi-racial, and other. There were no statistically significant differences between ethnic identities, $F(2, 407) = 1.83$, $p = .142$.

Objective Four: Investigate the Relationships Between Gender Identity, Ethnic Identity, Social Media Use, Online Comparison and Feedback-Seeking Behavior, and Psychological Well-Being

A multiple hierarchical regression was run to explain the relationship between psychological well-being from gender identity, ethnic identity, social media use, and online comparison and feedback-seeking behavior. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.01. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There were no studentized deleted residuals greater than 3 standard deviations, no leverage values greater than 0.2, and no values for Cook's distance above 1. The first model of the hierarchical multiple regression indicated that gender identity and ethnic identity were not significant predictors of psychological well-being, $F(2, 406) = 1.85$, $p = .158$. The adjusted R^2 value was .004, which indicated that gender and ethnic identities accounted for 0.4% of the variance in psychological well-being. The second

model built on the first model by adding respondents' social media use attributes (total hours spent on recreational screen-time, total number of social media platforms used, active social media use, parental mediation, and emotional connection). The second model was statistically significant, F (7, 401) = 4.33, $p < .001$, adjusted $R^2 = .05$. Finally, the third model included the online comparison and feedback-seeking behavior. Model three predicted 5.4% of the variance, adjusted $R^2 = .05$, F(8, 400) = 3.91, $p < .001$. Parental mediation and emotional connection were statistically significant variables that explained psychological well-being and social media use (see Table 12). An increase in psychological well-being is associated with an increase in parental mediation by 0.74. The positive increase of emotional connection by 1.74 is associated with an increase in psychological well-being.

Table 12

Hierarchical Multiple Regression Predicting Psychological Well-Being

|	Psychological well-being					
	Model 1		Model 2		Model 3	
Variable	B	B	B	β	B	β
Constant	41.86		32.33		32.55	
Ethnic identity	-1.67	-.07	-1.85	-.08	-1.86	-.08
Gender identity	-.89	-.06	-.34	-.02	-.39	-.03
Parental mediation			.75**		.74**	.15
Total hours spent on recreational screen-time			-.11	-.04	-.10	-.04
Total number of social media platforms used			.09	.02	.10	.02
Active use of social media			.62	.07	.82	.09
Emotional connection			1.57**	.15	1.74**	.18
Comparison and feedback-seeking behavior					-.49	-.06
R^2	.00		.07		.07	
F	1.85		4.34		3.91	
ΔR^2	.004		.054		.054	
ΔF	1.85		5.28		1.02	

$N = 409$. *$p < .05$. **$p < .01$. ***$p < .001$.

Final Conceptual Model

The final conceptual model (see Figure 2) shows the results of model three of the hierarchal multiple regression. The whole model explained 7% of the variance for psychological well-being. Parental mediation and emotional connection are the two statistically significant variables when examining psychological well-being.

Figure 2

Final Conceptual Model of Attributes Measured in Relationship to Psychological Well-Being
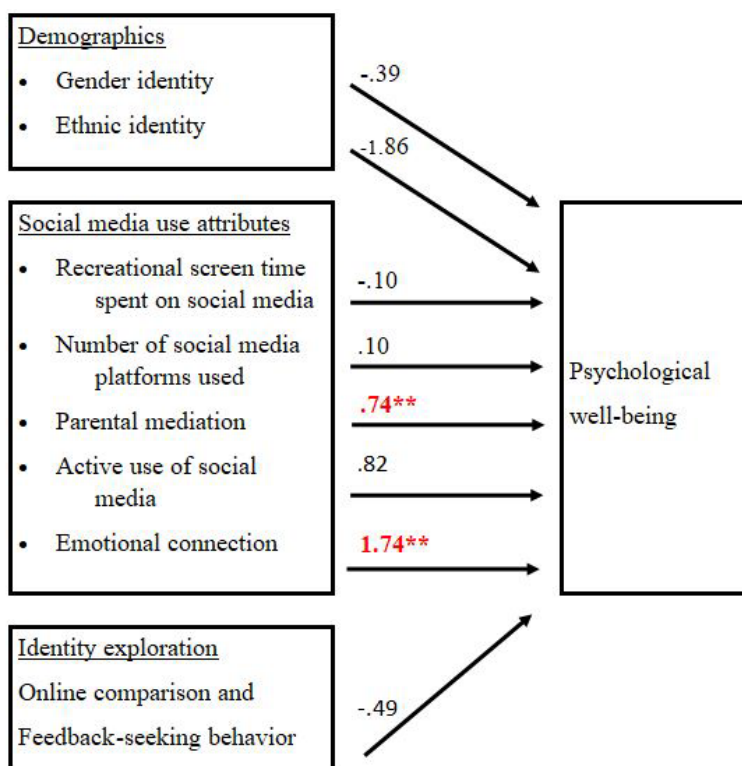
Summary

For research objective one, the frequencies and percentages were reported for the age in which the gender identities got their own smartphone. The mode for female and

male was 13 years old, and 9 and 11 years old for the nonbinary/other category. Then the frequencies and percentages were reported for the age in which the gender identities got their own social media account. Nonbinary/other had the mode of 12 years old, females 12 and 13 years old, and males 13 years old. The amount of recreational screen time spent on their smartphone was reported in hours and reported by both gender and ethnic identities. Males and whites had the least amount of recreational screen time, Nonbinary/ other had the most screen time, with the mode of 8.45 hours per day. The use of social media platforms was reported by both gender and ethnic identities. All of the gender and ethnic identities used YouTube more than any other social media platform. Parental monitoring strategies were examined by mediation or restriction. The mean and standard deviation were reported for gender and ethnicity. A one-way ANOVA found no difference between ethnic identities for parental restriction. A second one-way ANOVA found no difference between ethnic identities for parental mediation. Nonbinary/other had the lowest parental mediation and restriction, while Native American or Alaskan Native had the highest parental mediation and restriction. Emotional connection's mean and standard deviation were reported by ethnic identity, and it was found that Hispanic or Latinx had the lowest emotional connection of the ethnic identities. A one-way ANOVA found no difference in emotional connection between the ethnic identities.

In research objective two, nonbinary/other and Asian American or Pacific Islanders reported that it was somewhat true that they had compared themselves to their peers, while all other groups reported it was not at all true that they had compared themselves to their peers. A one-way ANOVA was performed for gender identities and

another one-way ANOVA was performed for ethnic identities for online comparison and feedback-seeking behaviors. There were no statistically significant differences within the gender identities or the ethnic identities.

Psychological well-being was analyzed in objective three by both gender identity and ethnic identities. Females had the highest summated score, then males, with nonbinary/others having the lowest psychological well-being score of the gender identities. As for ethnic identities, whites had the highest score, and Native American or Alaskan Native had the lowest score. Two one-way ANOVAs were conducted to determine if psychological well-being was different for gender identities and ethnic identities, in which it was found there were no statistically significant differences.

For research objective four, a multiple hierarchical regression model looked at which variables were related to psychological well-being. In model one, gender and ethnic identities did not have any statistical significance on psychological well-being. Model two built on model one by adding parental mediation, hours spent on recreational screen time, number of social media platforms used, active use of social media, and emotional connection to social media. It was found that parental mediation and emotional connection were variables with statistical significance. Model three added online comparison and feedback-seeking behavior to model two, and no change occurred in variance. The eight factors measured in model three predicted 7% of the variance in psychological well-being.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The theoretical framework for this study was Erik Erikson's theory of psychosocial development, specifically identity, which happens in adolescence. One of the ways in which identity is formed is by social comparisons. Social media use is increasing and is a convenient place for adolescents to explore their values and goals, receive feedback, and establish their identity. This chapter explains the results of the data and its implications, describes the limitations of the study, and offers recommendations for future research and practice.

Objective One: Describe Adolescents' Social Media Use

A variety of measures were used to describe adolescents' social media use. The first was the age in which the respondents got their own phone in which they were the primary user. Respondents had the highest frequency reported at 13 years old ($n = 82$; 20%). Examined by gender identity, the highest frequency was 13 years old for females ($n =44$, 10.8%) and males ($n = 37$, 9%). Nonbinary/other highest modes were 9 ($n = 3$, .7%) and 11 ($n = 3$, .7%). This age is higher than previous studies had reported. Influence-central.com reported in 2016 that the average age for American children to get their own smartphones was 10.3 years old. Participants from different socio-economic statuses may account for the large discrepancy in these different studies. Future research may include household income for further analysis of any possible differences.

Females had the highest frequency of getting their first social media account at

ages 12 (*n* = 49, 12%) and 13 years old (*n* = 49, 12%). The highest frequency for males

was 13 years old (*n* = 38, 9.3%), and nonbinary/other was 12 years old (*n* = 7, 1.7%).

This is higher than what earlier research has reported, stating that 75% of 10-12-year-olds

had created social media accounts by falsifying information (McDool et al., 2016).

Participants in this study may have been 13 years old when they registered for their first

social media account, or it may be possible that they knowingly falsified information at a

younger age and did not want to report that information for the fear of "getting caught."

This information is extremely valuable to parents who might be convinced that the

majority of children under 13 have social media accounts. Having this knowledge will

empower them to be able to hold boundaries with their child and encourage them to wait

until the specified recommended age.

The information concerning the age of the child's first phone and social media

accounts reflects Erikson's theory of development. Around age 13 is when a child would

begin to navigate separation from family values and begin to explore their own identity

within society (Batra, 2013). Gaining access to a phone and social media at this stage

expands these opportunities for growth, support networks, and exploration of sub-cultures

that they might not otherwise have access to.

The next measure of social media use was the average time per day that

participants use their phone for recreational screen time. Respondents identifying as

nonbinary/other spent 8.45 hours per day (*SD* = 4.40) on recreational screen-time on a

smartphone, followed by females (*M* = 7.06, *SD* = 3.54) and males (*M* = 6.23, *SD* =

3.38). It was found that participants who identify as white had lower recreational screen

time on their phones compared to other ethnicities. Previous researchers have had very

different results, including Twenge and Campbell (2018) who reported that adolescents

ages 14-17 spend an average of 4 hours and 35 minutes on screens. Strickland (2014)

reported the average adolescent spending 3.2 hours per day, and that 1 in 5 adolescents

reported being on social media for more than 6 hours per day. In 2017, Asano reported

adolescents spending up to 9 hours per day on social media. The researcher

acknowledges that this study was conducted in spring 2021, in which many COVID-19

restrictions were still in place. This restriction on in-person gatherings likely increased

the average time spent on their phone, as this may have been their primary form of

communication with friends and family. It is crucial for adolescents who are exploring

their identity to have opportunities for in-person social interactions that are not subject to

high scrutiny or feedback (Yang et al., 2017). With 7 hours per day of average screen-

time, it is possible that adolescents are not getting enough in-person interaction, which

may influence their development.

To measure type and frequency of social media platforms used, the question that

asked how many hours per week was spent on specific, frequently used platforms was

recoded. In the current study, all of the gender identities used YouTube more than any

other platform. Instagram is the second most commonly used platform by both males and

females. TikTok is the second most commonly used platform by nonbinary/other. Similar

results were found within the ethnic identities, with YouTube being reported as the most

frequently visited social media or gaming sites among all ethnic identities researched.

The second most frequently used platform for Asian American or Pacific Islander,

Hispanic or Latinx, and white was Instagram, and for Black American and Native

American or Native Alaskan was TikTok. The Pew Research Center reported in 2018 that

the most frequently used platforms by adolescents were YouTube (85%), Instagram

(72%), and Snapchat (69%; Anderson & Jiang, 2018). TikTok was not included in the

2018 research, but now has several hundred million daily users (Schonning et al., 2020).

The most frequently used social media platforms are the most visual, with videos and

pictures being the feature that sets these apps apart from others. YouTube may be the

most frequently used platform because it offers the ability to create and consume content.

Common activities that adolescents engage in on YouTube include listening to music,

watching television, creating with friends, giving and receiving feedback, and learning

(Pires et al., 2019). More than half of 13–24-year-olds who use Instagram reported that

they use the app to discover new interests, be more involved in communities, and follow

role models (Becker, 2016). When observing the popularity of Instagram through

Erikson's theory of psychosocial development, the platforms that provide space for

identity exploration continue to be the most popular among those within the ages of

identity formation.

Nonbinary/other respondents reported that about half of the time they actively

use social media, while all of the other groups stated that they "sometimes" actively use

social media. For passive use, the mean scores among gender and ethnic identities all fell

within the true limit of passively using social media about half of the time. Previous

research found that passive use may contribute to negative outcomes on psychological

well-being (Escobar-Veira et al., 2018; Lup et al., 2015). Both of these previous research

studies were conducted before the COVID-19 pandemic, which changed the way people use social media (Isumi et al., 2020; Nabity-Grover et al., 2020). The researcher did not find that actively or passively using social media was related to psychological well-being, which may or may not be related to the timing of this research.

It was discovered that parental monitoring of social media use varied among demographics. The researcher found that males and females perceive occasionally having parental restriction concerning their social media use, yet females report more parental mediation. Nonbinary/other had the lowest amount of parental mediation or restriction than other gender identities, reporting their parents rarely restrict and occasionally mediate social media use through conversations. Native Americans and Alaskan Natives have the highest amount of perceived parental monitoring, in which they reported their parents sometimes mediate and occasionally restrict their social media use, more than any of the other ethnic identities. Previous research stated that 40% of parents did not monitor their adolescent's social media (Gao, 2015; Martin et al., 2018). According to Erikson's theory of psychosocial development, parents and parenting are essential components of development in every stage (Batra, 2013; Kaye & Pennington, 2016). Adolescence is a time for individuals to start becoming more autonomous and rely on social support from peers; and parenting styles and parent-child relationships may influence peer relationships and socialization practices (Shields-Nordess, 2015). Future research could explore the quality of parent-child relationships, trust, and parenting styles to further examine the relationship of parental mediation and social media use.

When exploring emotional connection, previous research has stated that

emotional connection to social media could negatively impact well-being (Maree, 2017). Bekalu et al. (2019) researched emotional connection among demographics and found that race/ethnicity impacted psychological well-being but found no statistically significant differences of emotional connection to social media use within genders. The findings of this current research show that the different gender identities have similar emotional connection. While Hispanic or Latinx had the lowest emotional connection, and Black American and Native American or Alaskan Native had the highest emotional connection, all of the ethnicities were within the neither agree nor disagree answer choice, according to the true limits of the Likert-scale. COVID-19 may have impacted emotional connection to social media during the time of this study as respondents may have relied on social media as a primary source of communication. The literature review did not discover current research on emotional connection to social media use through identity development. This is an area for future research as this concept of how social media is being used continues to develop.

Objective Two: Identify Adolescents' Online Comparison and Feedback-Seeking Behavior

Responses from the current survey found that those identifying as nonbinary/other and Asian American or Pacific Islanders had agreed that it was somewhat true that they had engaged in online comparison and feedback-seeking behavior. All of the other gender and ethnic identities stated that it was a little bit true that they had compared themselves to their peers. In previous research of 18- to 23-year-old students by Posner

(2019), African American and Hispanic leaders sought feedback more than other ethnicities, with Asian students having the least number of feedback-seeking behaviors. The most contrasting finding was that Asian Americans or Pacific Islanders have the most feedback-seeking behavior, while previous research showed that group with the least. Posner describes feedback-seeking behavior as raising one's self-awareness yet creates conflict between the need to be accepted the way one is, and the need to grow. The difference in results between the two studies may be associated with age and maturity, with younger respondents in the current study still in the stage of egocentrism.

Objective Three: Describe the Adolescents' Psychological Well-Being

Psychological well-being was similar across gender and ethnic identities. Females and males reported very similar psychological well-being scores, while nonbinary/other was lower than the others. This may be influenced by which genders are deemed culturally acceptable, mainstream, or the possibility of being in a marginalized population. Research has shown that vulnerable populations, such as nonbinary, are more susceptible to online bullying, which may affect psychological well-being (Chassiakos et al, 2016).

Out of the ethnic identities, Native American or Alaskan Native had the lowest overall score for psychological well-being, while Whites had the highest score. It could be speculated that the differences between these scores may be related to oppression and privilege (Vine et al., 2003). Buckley (2018) suggested that researchers should expect outcomes to differ between marginalized and privileged groups.

Objective Four: Investigate the Relationships Between Gender Identity, Ethnic Identity, Social Media Use, Online Comparison and Feedback-Seeking Behavior, and Psychological Well-Being

When exploring the relationship between psychological well-being and the social media use variables of total number of hours spent on recreational screen time, total number of social media platforms used, active use, parental mediation, emotional connection, and online comparison and feedback-seeking behavior, the two variables that were statistically significant included parental mediation and emotional connection.

There are a multitude of ways for parents to navigate limits with their adolescents' social media use including mediation and restriction. Len-Rios et al. (2015) reported that when parents restricted their adolescents' time allowed on social media, their adolescent does not spend less time than an adolescent without those limits. In a study of parental mediation, Daneels and Vanwynsberghe (2017) found that parents who were the most literate with social media more frequently chose mediation over restriction. Parental mediation practices and attitudes about social media can affect the parent-adolescent relationship (Davis et al., 2020), and that relationship affects well-being (Dekovic, 1999). Parenting styles and attachment will influence the adolescents' sense of security, well-being, and identity formation (Sartor, 1999).

Bekalu et al. (2019) reported that emotional connection to social media in adults and was negatively associated with social well-being, positive mental health, and self-rated health. There is a bidirectional relationship between mental health and social media use, therefore it cannot be determined that one causes another. In a study of adolescents

in Scotland, research found that higher levels of emotional connection to social media are at higher risk for factors that contribute to potentially negative psychological well-being and recommended further research (Woods & Scott, 2016). The current research found that emotional connection to social media had a positive relationship with psychological well-being. The differences might be explained by the ages of participants in the first study, and the geographic location in the second study. Another possibility could be the 5-year time between the last study, as technology and its use change rapidly.

Limitations of the Study

The researcher acknowledges limitations within this study. This study strived to include those who do not identify with the gender binary. Adding this variable created new knowledge, but with the small sample size it was difficult to compare the statistics to the other gender identities. U.S. Census data on gender beyond male and female has not reported for adults or children, so research is more limited on social media use within different gender identities. Genders that are not on the binary are recently becoming better known and accepted. It is currently difficult to identify a representative population size for nonbinary/other, which may change in the future.

While this study aimed to focus more on cultural ethnicity than race, it failed to consider if the adolescent has explored their ethnic identity online and if they have a strong sense of ethnic identity, as this factor can add resilience and is linked to positive psychological well-being (Day-Vines et al., 2003; Purgason et al., 2020). Future research may want to include questions regarding ethnic and cultural exploration and if individuals

feel strongly connected to that identity or not.

Recommendations for Research

Researchers have measured psychological well-being using a variety of variables. Future studies could expand on this research by considering one or more of these variables to understand well-being and its relationship to social media use: risk factors and protective factors, upward and downward comparisons, happiness, fear of missing out, loneliness, bullying, envy, self-esteem, confidence, self-awareness, resilience, or emotional intelligence.

Future research might explore these factors using different theories. Social identity theory could be used to further explore the impacts of stereotypes on attitudes and behaviors, thereby aiming to reduce harm. This theory suggests that individuals have two types of identity: personal identity which sets them apart as unique individuals while social identity identifies them as a member of a group (Kaye & Pennington, 2016). Identity processing theory could better help explain differences in experiences through social statuses. In this theory, individuals identify themselves and their environment through experiences on social media. Individuals evaluate information and experience assimilation-accommodation and decide if they want to make adjustments in their life. These adjustments will allow for new experiences for the individual to evaluate and continue to develop (Yang et al., 2018).

The American Academy of Pediatrics (2020) currently offers an interactive tool to create an individualized "Family Media Use Plan" (healthychildren.org, 2020), Many

suggestions include parental restriction techniques and offer some parental mediation techniques including digital citizenship and digital footprints. The findings of this study suggest that parental mediation is related to adolescent's psychological well-being, and therefore recommend increasing discussions regarding reality, expectations, and comparisons, in addition to online safety.

It is recommended to further explore the relationship between parents or caregivers with their adolescents in regard to social media usage. This study revealed that adolescents' perception of any parental involvement is low. Future research might conduct a dyadic study with parents and their adolescents to compare responses of parental involvement, parenting styles, perceived screen time use, and perceived well-being. Future research might investigate the use of parental control apps on their adolescents' phones.

The term "social comparison and feedback-seeking" may have a negative implication for adolescents and skewed their responses. Yang et al. (2017) described two different types of comparison. Social comparison of *ability* compares performance or achievement and is generally judgmental. This type of comparison seeks to learn who is more successful or better off. Social comparison of *opinion* includes comparisons of values, beliefs, attitudes, or thoughts. In this type of comparison, one learns about social norms and forms their own values and opinions. This research focused on social comparison of opinion as a positive, identity forming comparison, not social comparison of ability which tends to be more competitive in nature. Future research might use different terminology to reflect these differences as well as a different scale to capture

this in a more distinctive way.

This study acknowledges the focus of this research on social media to help adolescents in their discovery of self-identity. While 31% of adolescents believe that social media has positive influences (Anderson & Jiang, 2018), it may also have negative influences including bullying, fear of missing out, and sexual predators. The scope of this study could not encompass all of the potentially negative factors and focuses on encouraging parents to have open dialogue with their children about how to handle these situations. Technology and social media use will continue to grow, and children need information, self-confidence, and trust. Children form these relationships and skills through interactions with their parents and caregivers.

Recommendations for Practice

Extension professionals can use this information concerning average recreational screen time to bring awareness and encourage healthy physical and social activities that might be available through their local Extension office. They could also use this information to market to adolescents who currently do not use Extension services, by utilizing the most frequently used platforms by adolescents, YouTube and Instagram, to reach members of their community. While individual communities continue doing their own needs assessments, communities may find the need to serve additional ethnic or gender identities. This may require the addition of new programming to best serve these growing populations. This research shows to Extension professionals that while communities are made up of different demographics, and to be conscious of differences,

that most adolescents are going through the same things and are using social media in similar ways.

Mental health professionals can ask questions to find more about their patient's social media use, specifically if it is emotional connection. It would be helpful for professionals to explain to parents and adolescents about the psychosocial stage of identity formation and help normalize the exploration of beliefs and values, and the normalcy of comparison among peers (Rageliene, 2016).

Parents and caregivers can benefit from having current and local research concerning when children and adolescents are reporting getting their own phones and social media accounts. While there is a set age limit on social media accounts, parents are often looking to each other and their local social norms for guidance on when to buy their child a phone. It can be affirming to know that among U.S. residents, the average age for children to get a cell phone and social media account is age 13. The findings on parental mediation and restriction reveal that parents are not very active in monitoring the use of their adolescents' smartphones, and parental mediation is a factor in adolescents' psychological well-being.

While society is beginning to normalize younger adolescents having phones, they will also need guidance. Having conversations about appropriate sharing should include basics about not giving out personal information but could also encompass oversharing or stressed sharing with friends (Radovic et al., 2017). Parents and caregivers could discuss social comparisons and explain the difference between social comparison of ability that focuses on who is better looking or better off that could lead to feelings of inferiority or

envy; versus social comparison of opinion in which there is an exchange of information

to form thoughts, attitudes, beliefs and values, and learning social norms (Yang et al.,

2017). Parents could encourage identity exploration and be more accepting of the shift

when adolescents begin to move towards autonomy (Shields-Nordess, 2015). Parents

should be prepared to discuss action steps with their adolescents when they experience

unwanted encounters online rather than only try to protect adolescents from these things

happening. Both strategies of restriction and mediation conversations can work together

and may contribute to better well-being of the adolescent. While many adolescents report

their caregivers do not restrict their social media, and COVID-19 may impact this,

parents should be aware that it is appropriate to set limits concerning their adolescent's

screen time and social media use, but it may not be as effective as having a conversation

with them about it and allowing self-regulation.

Results from this demographic comparison study had an overarching theme that

people are more similar than they are different. Although there were slight variations in

demographic groups, overall answers to each variable were very similar. During this time

of gender and racial divides, it is important to recognize that while everyone experiences

life differently, all are experiencing it together, and may have more in common than what

divides.

Summary

This chapter reviewed key findings of the study, provided interpretation of results,

and offered recommendations for future research and practice. The mode for the age in

which respondents got their first phone was 13 years old, which was higher than previous studies. Socioeconomics may be studied further to explore possible differences. Adolescents reported getting their own social media accounts at the ages of 12-13, which is higher than previous research reported. This is in line with most social media accounts requiring people who sign up to be at least 13 years old. Respondents reported higher recreational screen time than studies reported in the literature review that was conducted. This research was study was administered during the COVID-19 pandemic, which may account for different results than previous research. All gender and ethnic identities use YouTube most frequently, which could be a combination of the ability to actively create as well as passively consume content, although the difference between actively or passively using social media did not have an impact on psychological well-being. Other research has shown that YouTube and Instagram continue to be popular among adolescents, which are both visually interactive. Adolescents perceived having occasional parental restriction techniques, with Native Americans and Alaskan Natives have the highest amount of perceived parental monitoring. Previous research has reported that 40% of parents did not monitor their adolescent's screen time. When examining emotional connection to social media, all of the ethnicities were within the neither agree nor disagree answer choice, which indicates they do not solely rely on social media to relieve stress and loneliness. The literature review conducted suggested that those who have higher emotional connection to social media would have lower psychological well-being.

Feedback-seeking behaviors were the highest among nonbinary/other and Asian

American or Pacific Islander respondents. All gender and ethnic identities stated it was a little bit true that they have engaged in online comparison and feedback-seeking behaviors. This would be expected as a typical adolescent developmental task to observe and compare. This revealed different results than previous research which showed Black Americans and Hispanics having the highest feedback-seeking behaviors. Psychological well-being was similar across the gender and ethnic identities, yet the more vulnerable populations were lower on the psychological well-being scale than more traditionally privileged groups, which would be expected. Parental mediation and emotional connection were two variables that showed to be significant when examining psychological well-being. Parental mediation includes open conversations with their adolescent, rather than merely restricting and trying to not allow experiences on social media. Emotional connection describes individuals who use social media as their primary source to relieve stress, loneliness, or depression.

Future research could examine parent-adolescent relationships, including trust, communication, parenting styles, and use of parental control apps. It is recommended to conduct a dyadic survey to study both parents' and adolescents' perceptions of screen time use and psychological well-being. Future research could further study the relationship between emotional connection and psychological well-being.

Future practice that may result from the conclusions of this study may include Extension professionals using more video and picture focused platforms to reach adolescents who may or may not currently use Extension services. Extension professionals can also use this information for parent education to focus on ways to teach

parents to be more actively involved in their adolescents' use of social media. This may include more open conversations about how to handle situations that will be encountered on social media, rather than only using restriction to block their adolescent from experiencing difficult situations on social media. Extension and mental health professionals could also use this research to acknowledge the importance of adolescents' coping skills and teach them internal ways to handle boredom, loneliness, depression, and stress.

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APPENDIX

QUESTIONNAIRE

Questionnaire

Social Media Usage and Psychological Well-Being in Adolescents

Introduction
Your child is invited to participate in a thesis research study conducted by Principal Investigator Dr. Kelsey Hall, an associate professor in the Department of Applied Sciences, Technology, and Education, and Student Researcher Heather McCall, a master's degree student, at Utah State University.

The purpose of this research is to examine the psychological well-being of adolescents and their social media use. Specifically, we are interested in when adolescents are getting their own phones and social media, which apps adolescents are using most frequently, how adolescents are using social media, how caregivers are mediating social media usage, and adolescent's psychological well-being. Your child's participation is entirely voluntary.

As described in more detail below, we will ask your child to participate in one online survey, which should take 10 minutes to complete. Your child is being asked to participate in this research because the response will help inform our understanding of these items and any potential relationships of social media and adolescent's psychological well-being. Because the possible risk of participating in this study includes the loss of confidentiality, you may not wish for your child to participate. It is important for you and your child to know that you or your child can stop their participation at any time.

Procedures Your child's participation will involve collecting information through an online survey designed in Qualtrics and administered by Centiment. Your child's total participation in this project is expected to be 10 minutes. We anticipate that 423 adolescents will participate in this research study.

Risk This is a minimal risk research study. That means that the risk of participating is no more likely or serious than those your child encounters in everyday activities. The foreseeable risk or discomfort includes the loss of confidentiality if signed consent forms would identify the study's participants. In order to minimize this risk, the researcher will keep research records consistent with state and federal regulations. Only the researchers will have access to the data, which will be kept in a password-protected USU Box folder. All information that is reported for the study will be done as a group and will not focus on a specific individual.

Benefits Although your child will not directly benefit from this study, it has been designed to learn more about adolescents in the U.S., their social media usage patterns, and identify possible differences among demographics.

Confidentiality The researchers will make every effort to ensure that the information about your child in this study remains confidential. Your child's identity will not be revealed in any publications, presentations, or reports resulting from this research study. We will collect your child's information through Qualtrics. Online activities always carry a risk of a data breach, but we will use systems and processes that minimize breach opportunities. This survey data will be saved as SPSS files. SPSS is a data analysis software program used for social science research. These files will then be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage system. These SPSS data files will be kept for 3 years and will be destroyed in January 2024.

It is unlikely, but possible, that others (Utah State University or state or federal officials) may require us to share the information your child gives us from the study to ensure that the research was conducted safely and appropriately. We will only share your family's information if law or policy requires us to do so. If the researchers learn about suspected abuse/neglect of a vulnerable individual, state law requires that the researchers report this suspicion to the authorities.

Voluntary Participation & Withdrawal
Your child's participation in this research is completely voluntary. If your child agrees to participate now and changes their mind later, they may withdraw at any time by closing out of the survey.

Payment or Compensation
For your child's participation in this research study, they will receive $5.00 and according to the terms agreed upon when entering into the survey with the panel company (i.e., Centiment).

IRB Review The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you or your child has questions about the research study itself, please contact the Principal Investigator at 435-797-3289 or kelsey.hall@usu.edu. If you or your child have questions about your child's rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu. IRB Study No: irb-11708 Download this Letter of Information for IRB Protocol 11708

Youth Assent We are doing a research study about the psychological well-being of adolescents and their social media use. Research studies help us learn more about people. If you would like to be a part of this research study, you will participate in one online survey, which should take 10 minutes to complete.

When the researchers do things like collecting data from surveys, some other things could happen. For example, the loss of confidentiality. The risk of participating is no more likely or serious than those you encounter in everyday activities. We will do everything we can to prevent those things from happening, but there is still a chance, so we want you to know that first.

Not everyone who is a part of research studies receives something good from it. In this study, nothing directly good will happen to you, but you will help us learn more about people like you. Also, we will tell other people about what we learned from doing this study with you and the 422 other people who are in the study, but we won't tell anyone your name or that you were in the study. For your efforts in our study, we will give you $5.00.

If this sounds like something you would like to do, we will ask you to answer the following question that you want to participate. You do not have to be in this study if you do not want to be. If you decide to stop after you begin the survey, that's okay, too. No one will be upset if you don't want to do this or change your mind later.

You can ask any questions you have, now or later. Your parents know about this research study, and they have said you can participate, if you want.

By continuing to the survey, you agree that you are between the ages of 13-17 and wish to participate. You agree that you understand the risks and benefits of participation and that you know what you are being asked to do. You also agree that if you have contacted the research team with any questions about your participation and are clear on how to stop your participation in this study if you choose to do so. Please be sure to retain a copy of this form for your records.

○ Yes, I am between the ages of 13-17, and I agree to participate in this study.

○ No, I am not between the ages of 13-17, and I do not agree to participate in this study.

At which age did you get your own phone in which you were the primary user?

○ Less than 8 years old

○ 8

○ 9

○ 10

○ 11

○ 12

○ 13

○ 14

○ 15

○ 16

○ 17

At which age did you get an account on ANY social media platform?

○ Less than 8 years old

○ 8

○ 9

○ 10

○ 11

○ 12

○ 13

○ 14

○ 15

○ 16

○ 17

How much time per day, on average, do you spend on recreational screen-time on your phone? (Time that is NOT used for homework, may include video games, movies, shopping, etc.)

○ Hours: _____

○ Minutes: _____

About how many hours per week do you spend visiting the following social media or gaming sites?

	I don't use this platform	Less than 1 hour	1-2 hours	3-5 hours	6-9 hours	10-19 hours	20-29 hours	30-39 hours	40 hours or more
Facebook	○	○	○	○	○	○	○	○	○
Instagram	○	○	○	○	○	○	○	○	○
Pinterest	○	○	○	○	○	○	○	○	○
Roblox	○	○	○	○	○	○	○	○	○
Snapchat	○	○	○	○	○	○	○	○	○
TikTok	○	○	○	○	○	○	○	○	○
Twitch	○	○	○	○	○	○	○	○	○
Twitter	○	○	○	○	○	○	○	○	○
YouTube	○	○	○	○	○	○	○	○	○
Other (please specify)	○	○	○	○	○	○	○	○	○

How often do you engage in the following behaviors on any social media platform on a typical day?

	Several times a day	Most of the time	About half the time	Sometimes	Never
Read discussions	○	○	○	○	○
Read comments/ reviews	○	○	○	○	○
Share other's content	○	○	○	○	○
Comment on, or respond to someone else's content	○	○	○	○	○
Post your own content	○	○	○	○	○

Please answer the following information about your primary caregiver(s).

	Not at all	Rarely	Occasionally	Sometimes	Frequently	Usually	Very frequently
How frequently do your parents remind you not to give out personal information on social media?	○	○	○	○	○	○	○
How frequently do your parents tell you to stop any experience on social media if you feel uncomfortable or scared?	○	○	○	○	○	○	○
How frequently do your parents explain to you about potential the dangers of social media?	○	○	○	○	○	○	○
How frequently do your parents restrict the type of social media platforms you can visit?	○	○	○	○	○	○	○
How frequently do your parents set rules regarding	○	○	○	○	○	○	○

your access to social media, such as Facebook, Twitter, YouTube, Instagram, etc.?							
How frequently do your parents limit the kind of activities you can do on social media?	○	○	○	○	○	○	○
How frequently do your parents restrict the amount of time you can use social media?	○	○	○	○	○	○	○
How frequently do your parents limit you to using social media only for schoolwork?	○	○	○	○	○	○	○

To show that you are paying attention, please select only the "none of the above" option as your answer.

○ Excited

○ Strong

○ Guilty

○ Enthusiastic

○ None of the above

Skip To: End of Survey If To show that you are paying attention, please select only the "none" of the above" option as your... = Excited
Skip To: End of Survey If To show that you are paying attention, please select only the "none" of the above" option as your... = Strong
Skip To: End of Survey If To show that you are paying attention, please select only the "none" of the above" option as your... = Guilty
Skip To: End of Survey If To show that you are paying attention, please select only the "none" of the above" option as your... = Enthusiastic

Please indicate your level of agreement on each of the following statements.

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
I enjoy checking my social media accounts	○	○	○	○	○
I don't like to use social media	○	○	○	○	○
Using social media is part of my every day routine	○	○	○	○	○
I respond to content that others share using social media	○	○	○	○	○
I feel disconnected from friends when I have not logged in to social media	○	○	○	○	○
I would like it if everyone used social media to communicate	○	○	○	○	○
I would be disappointed if I could not use my social media account at all	○	○	○	○	○
I get upset when I can't log on to social media	○	○	○	○	○
I prefer to communicate with others through social media	○	○	○	○	○
Social media plays an important role in my relationships	○	○	○	○	○

I use social media to ...

	Extremely true	Very true	Somewhat true	A little bit true	Not at all true
check out the way others look.	○	○	○	○	○
compare the way I look with other people's looks.	○	○	○	○	○
get feedback from others on the things I send/post.	○	○	○	○	○
see what others think about how I look.	○	○	○	○	○
compare my body/shape with other people's bodies/shapes.	○	○	○	○	○
see what others think about the things I send/post.	○	○	○	○	○
see if others think I am cool, funny, or popular.	○	○	○	○	○
see what others think about my photos.	○	○	○	○	○
see what the "popular" kids think about me.	○	○	○	○	○
compare my life with other people's lives.	○	○	○	○	○

Who do you primarily follow on social media apps?

○ People you personally know and talk to in real life

○ Famous or well-known people that you do not talk to in real life

---

Who do you most frequently talk to on social media apps?

○ People you personally know and talk to in real life

○ Famous or well-known people that you do not talk to in real life

Please indicate your level of agreement on each of the following statements

	Strongly agree	Agree	Slightly Agree	Neither agree nor disagree	Slightly Disagree	Disagree	Strongly disagree
I lead a purposeful and meaningful life	○	○	○	○	○	○	○
My social relationships are supportive and rewarding	○	○	○	○	○	○	○
I am engaged and interested in my daily activities	○	○	○	○	○	○	○
I actively contribute to the happiness and well-being of others	○	○	○	○	○	○	○
I am competent and capable in the activities that are important to me	○	○	○	○	○	○	○
I am a good person and live a good life	○	○	○	○	○	○	○
I am optimistic about my future	○	○	○	○	○	○	○
People respect me	○	○	○	○	○	○	○

How old are you?

○ 13

○ 14

○ 15

○ 16

○ 17

I self identify as...

○ Female

○ Male

○ Non-binary

○ Other

I self identify as... (select all that are applicable)

☐ Asian American or Pacific Islander

☐ Black or African American

☐ Hispanic or Latinx

☐ Native American or Native Alaskan

☐ White or Caucasian

☐ Other

Which state do you live in?

_____