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## How the Rise in Social Media Use Impacts the Mental Health of Adolescents

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How the Rise in Social Media Use Impacts on Mental Health of Adolescents

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**Dedication**

Maggie, Easton, Isaac, Hallie, and Hannah

## Table of Contents

Abstract.....	5
Chapter One: Introduction .....	6
Scope of Research.....	6
Importance of the Research .....	7
Research Questions.....	7
Connection to Program Essential Question .....	8
Definition of Terms.....	8
Summary.....	8
Chapter 2: Literature Review.....	10
The Rise in Adolescent Use of Social Media .....	10
Text-Based Platforms.....	11
Facebook.....	11
Twitter.....	12
Image-Centric Platforms.....	12
Instagram.....	12
Snapchat.....	12
Social Media Postive Impacts on Mental Health.....	13
Emotional Support .....	14
Sense of Belonging .....	15
Instant Gratification .....	16
Social Media Negative Impacts on Mental Health.....	17
Depression.....	18

Comparison .....	18
Cyberbullying .....	19
Body Image.....	20
Anxiety.....	22
Factors That Impact Mental Health. ....	23
Time Spent on Social Media.....	24
Number of Social Media Accounts.....	26
Conclusion .....	27
Chapter 3: Summary .....	29
Insights Gained from the Research.....	29
Application.....	30
Administration .....	30
District Level .....	31
Limitations of Research .....	31
Future Studies .....	32
References.....	34

**Abstract**

Social media is more available now than ever before. More platforms are available and access to each platform is just one click away for anyone with a cell phone, tablet, iPad, or computer. Since social media was introduced, there has also been a steady rise in mental health concerns, especially in adolescents (Ellis et al., 2020). This leads to the question, how does social media impact mental health of adolescents? The potential implications of this question impact both educators, parents, and adolescents. This literature review examined how the rise in social media use has impacted mental health of adolescents, both positively and negatively, and the factors that potentially play a role in how mental health is impacted. After reviewing the fifteen peer-reviewed studies, it was shown that the increased use social media negatively impacts mental health of adolescents today.

*Keywords:* adolescents, mental health, social media,

## Social Media Impact on Mental Health of Adolescents

### **Chapter One: Introduction**

The mental health of students is a paramount issue facing educators today. For students to reach their full potential academically, socially, and emotionally, they must have a sound mind and positive self-esteem. The mental health of students has been declining over the last decade at a significant rate (Horowitz & Graf, 2019). The mental health of students must be considered by educators as they make decisions about how to provide the best possible education for their students.

The dramatic rise in social media use among adolescents is a potential reason for the decline in the mental health of students. Social media has continually evolved to increase usage among adolescents, both in spending more time on social media platforms and “checking in” to the platform to see what may be new (Throuvala et al., 2019). More students are spending time on social media than ever before, which can lead to potential implications for the mental health of the user (Abi-Jaoude et al., 2020). This research identifies the correlation between social media use by adolescents and their mental health.

#### **Scope of Research**

The scope of research first covers how social media use has risen significantly and the multitude of reasons adolescents use social media. Then, the majority of research presented identifies the implications of social media use on the mental health of adolescents (ages 10-19) both positively and negatively. Lastly, the findings of the research and potential applications of that knowledge are provided for future use in the classroom and home settings.

### **Importance of the Research**

Student mental health has never been more openly discussed as it is now. Educators are tasked with not only providing an adequate education but providing students with social and emotional growth as well. Only a small number of schools can financially afford to provide the type of support that students need mentally and emotionally, so that is a task that often falls back on the classroom teachers within the district. Understanding the presence and seriousness of the mental health issues within the classroom is vital for any teacher, but before help can be provided adequately, there needs to be an understanding of why a student may feel a certain way about themselves. Understanding how social media is being used by students and the result of that use is just one way that educators can understand the pressures adolescents face today. With this understanding, teachers may be more equipped to provide support to their students in an equitable and inclusive manner, providing much needed mental health support to students.

### **Research Questions**

For educators to provide an equitable and inclusive environment that positively impacts student development and learning, they must be able to understand the issues that face the students in their respective classrooms. Educators need to have the tools to impact students in a positive way considering what may be going on in society around them as they develop. As mental health becomes more prevalent in students, teachers must be able to understand what may be causing issues and how to provide a space that allows students to build self-esteem, create and model positive relationships, and strive for success academically. With this information, the question that must be asked is, how does the rise in social media use impact the mental health of adolescents?



### ***Connection to Program Essential Question***

The research question is connected to the program essential question by providing educational leaders valuable information about the students increasing likelihood of mental health needs in their buildings and how to best lead them through policy creation/adaptation, curriculum adoption, and providing an equitable and inclusive environment for all students.

### **Definition of Terms**

To provide further clarity to the reader, this section identifies terms used throughout the writing and how they should be defined by the reader.

***Adolescent*** is a young person in the stage of developing from a child to an adult, classified as the ages between 10-19. (World Health Organization, 2022)

***Mental Health*** “includes our emotional psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood.” (U.S. Department of Health & Human Services, 2020)

***Social Media*** is any form of electronic communication through which users create online profiles to form communities, sharing information, pictures, videos, ideas and content (Zimmer-Gembeck et al., 2020).

### **Summary**

Research will provide how social media and mental health are linked together and what characteristics of mental health are impacted most. This research also shows how increased usage, number of social media accounts, and parental involvement in social media use correlate with mental health. Lastly, with the research provided, educators should be able to conclude

how to use this information to set up their classroom environment and teaching styles to suit all students.

In chapter two, there will be a literature review of studies completed on adolescents based on the amount of social media they use and how they feel about themselves. Chapter three will provide a summary of the main points from the literature review and provide information about how to best use the information presented.

## **Chapter Two: Literature Review**

### **The Rise in Adolescent Use of Social Media**

Social media platforms are more accessible and prevalent in society more now than ever before. Over 89 percent of adolescents aged 13 to 17 have smartphones, which is double from only six years prior (2016). Seventy percent of teenagers access social media multiple times daily, which is up from a third of teens in 2012, and almost all teens have access to social media and the internet at all times (Abi-Jaoude et al., 2020). To reinforce this growing trend globally, in a study completed by Ellis et al. (2020), 1,316 Canadian adolescents were given a survey asking about their use of social media before and after the COVID-19 pandemic forced lockdowns across the world. The results of the survey showed that between 83-87 % of adolescents owned their smartphones, of which 86 % used social media sites at least daily before the COVID 19 outbreak. Responses also showed a significant increase in social media use within three weeks of nationwide lockdowns. Adolescents were most likely to use social media between 30 minutes to two hours (33.1%) before COVID, with two to three hours per day as the second-highest response (31.1%). Three weeks after the COVID outbreak, the highest response total grew to five to ten hours per day (35.4%), and the second-highest response was three to five hours per day (29.7%) (Ellis et al., 2020).

Another study that reinforced the continuous growth of the use of social media by adolescents was completed by Barry et al. (2017). This study was completed by 113 parent-adolescent pairings in America who completed multiple surveys regarding their perspectives on the amount of social media use by the adolescent, reasons for use, and the impact they believe social media has on the mental health of the adolescent. This study was completed before the COVID outbreak, unlike the study above, but still showed that over 24% of adolescents reported

being online “almost constantly”, including 92.9 % of adolescents reporting owning at least one social media account (Barry et al., 2017). In addition to the unlimited access adolescents have to social media, they are outpacing all other age groups by a large margin in adopting new social media platforms as well, growing their social media presence almost continuously (Sherman et al., 2016).

This paper analyzed the impact that this rise in social media has on the mental health of adolescents. Research provided described the different types of social media platforms, positive and negative impacts of social media on mental health, and potential factors that play a role in how social media impacts adolescents.

### **Text-Based Platforms**

Social media platforms continue to evolve and adapt to get more viewers or customers to visit their sites or application (app). Platforms that would qualify as information-sharing platforms are those that provide the viewer with written stories, articles, news, updates, etc. These apps are replicable of the “first days” of social media.

#### ***Facebook***

Facebook is the application that started the huge rise in the use of social media both nationally and globally. The app provides each user the opportunity to connect with friends in an online community. By updating a user status, the user can upload text, pictures, or videos to their “wall” for their friends to see. Facebook is still considered a text-based platform, but continues to develop and add newer tools that mimic newer, image-centric apps, like access to a marketplace, live stories, and posted stories (Bayer et al., 2016).

#### ***Twitter***

Twitter also is classified as an information-sharing platform, providing up-to-date information across the globe. Twitter mimics the “news feed” idea that Facebook has used since its early days and limits the user to a certain number of characters and/or pictures/videos.

Twitter continues to stay true to its roots, not attempting to break into the live event space as much as other apps, relying on followers to turn to their app for quick information based on who the user follows (Throuvala et al., 2019).

### **Image-Centric Platforms**

Relatively newer to the scene are picture and video sharing platforms. These applications specifically require the user to supply a picture or video along with a limited number of words to create a post or message to send to their followers or friends, then allowing those people to “like”, comment, or privately message them concerning their post.

#### ***Instagram***

Instagram is one of the largest growing applications both nationally and globally among adolescents. Over 70 percent of adolescents have an Instagram account. There are even some adolescents that make another private Instagram account, called a “Finstagram” account to privately follow and react to other people’s stories without being traced back to them. Instagram provides the user the ability to provide a picture or short video and a short description as a posted update on what the user is currently doing for their “followers” (Vannucci & McCauley Ohannessian, 2019).

#### ***Snapchat***

Snapchat is another largely popular application among adolescents, with roughly 69 percent of them having an account. This app allows the user to send a picture or video that is no longer than ten seconds in length to any friend that they have in their contact list on the app. The

picture or video plays and then disappears. Snapchat has developed into providing a chat function and made “streaks” popular, where the app keeps track of how many days in a row two friends send a snap to one another (Vannucci & McCauley Ohannessian, 2019).

While most people may just see social media as any application or platform that can be accessed, the different types of platforms have a different end result on the user. Each type of application has a different impact on how adolescents receive and process information. These different forms of social media are discussed in this writing, each having different impacts on adolescents.

### **Social Media Positive Impact on Mental Health**

While research mainly points to social media negatively impacting mental health, there are potential positive impacts that social media has to offer. Biernesser et al. (2020) completed a study by interviewing 23 adolescents with depression and one of their parents for roughly 30 to 60 minutes to gain information about the use of social media and the characteristics of the adolescent use. The researchers aimed to find experiences that were beneficial and/or negative to the adolescent’s mental health. Adolescents and parents alike agreed that social media was an outlet for the adolescent to interact with their peers in situations where face-to-face may not be possible (Biernesser et al., 2020). The study completed by Ellis et al. (2020) also found a positive correlation between positive interactions with peers and a boost in mental health.

The interactions that produced the most positive outcome on mental health were on social media platforms that provide opportunities for adolescents to see one another (ex. Snapchat, FaceTime) versus texting, sending/receiving images, or voice messaging. The assumed reasoning for the positive boost to mental health was because these interactions were most in line with face-to-face interactions an adolescent would experience in a public setting (Biernesser et

al., 2020). Ellis et al. (2020) also found that students that were completing schoolwork while using social media were also less likely to experience depressive symptoms.

While the research did show that platforms that allowed adolescents to see each other on the app were the best overall for mental health, there is still some potential for harm. Even though adolescents are communicating with peers of their choosing while on these applications, the possibility of bullying is higher over the phone than it would be in person, especially as time increases on social media sites (Berry et. al, 2017).

### ***Emotional Support***

As the number of adolescents with mental health symptoms rise, so does the need for safe spaces and emotional support. In a study completed by Biernesser et al. (2020), both parents and adolescents found that social media can provide a boost to the mental health of depressed adolescents when they can express emotions within a group of like-minded peers. Most social media platforms have groups that anyone can join, including support groups for teens feeling anxious, depressed, alone, etc. Adolescents can connect with people or groups that they would not otherwise be able to due to social media, creating a place for making connections and receiving the emotional support they may need. The study completed by Ellis et al. (2020) agrees with this sentiment, stating, “connecting to peers is crucial for adolescents, and virtual connections should be encouraged, especially because these connections may help alleviate loneliness.” (p. 183)

One goal of many social media platforms is to connect with like-minded people that would not normally have this opportunity. While the intent of connecting people is positive, the results have proven that these groups can turn negative for adolescents. No matter the group's intent, there is a strong correlation between the amount of time on social media and declining

mental health (Abi-Jaoude et al., 2020). Groups to help others can have the opposite effect, further glorifying negative feelings (Ellis et. al, 2020). Adolescents are at a stage developmentally where they are trying to identify who they are as a person; they are also looking for others with who they can identify. When an adolescent is a part of a group that is focused on mental health, there is a larger chance that the group can heighten their internal symptoms to match those around them (Barry et. al, 2017). Adolescents often have a hard time reaching out to others for help when they need it. Social media provides the opportunity for the user to find “groups” that they can join, providing a safe space to share emotions in a healthy way. This is one potential positive, if used properly, of social media use (Barry et. al, 2017, Ellis et. al, 2020).

### *Sense of Belonging*

Social media sites allow users, especially adolescents still in the brain developmental stages, to feel that they are a part of a community of like-minded people. Users can find others that agree with their line of thinking, opinions, and emotional needs. Applications are creating more and more ways for users to connect with groups of people. Facebook has groups, explicitly for people like-minded or people with similar interests to join from across the globe and share information. Snapchat has created private stories that are only shared with select friends instead of their whole friend list. Adolescents that have access to these endless ways to feel they are a part of something virtually give them that sense of belonging (Abi-Jaoude et al., 2020).

Vannucci and McCauley Ohannessian, (2019) also received results that image-centric platforms allow for adolescents to feel they are a part of something bigger than themselves, providing a space for self-expression, viewing pictures and messages from close friends that allows them to escape from real-world problems, even if only for a short amount of time, to stay socially connected. This connection results in adolescents reporting a significantly higher



perceived friend support than those that use text-based platforms, feeling that they have stronger bonds and self-competence in establishing and maintaining close friendships both in person and on social media. Social media platforms also provide adolescents that are ethnic or racial minorities a space to express their beliefs and connect with similar peers, especially if they are located in communities that may not represent their ethnic or religious backgrounds (Vannucci & McCauley Ohannessian, 2019). All people, regardless of age, want to feel as though they belong in their community. Adolescents, as they go through changes and self-discovery, need that feeling to grow and mature positively, reinforcing positive habits and building a positive self-esteem.

### ***Instant Gratification***

The use of social media provides gratification to the user even before they open or post to the application. A study conducted by Bayer et. al (2019), sampled students that posted to Facebook “daily or almost daily” and completed surveys daily about how they felt before, during, and after using social media. They responded to questions concerning the environment and other events throughout the day to see how social media could potentially impact moods. The results showed a spike in mood from the users both in the 10 minutes before and after posting or using social media. Just knowing they would open the social media app made the user feel better for that short amount of time. However, if stretched out to 30 minutes, the effects usually were much lower, if not regressed in a negative way (Bayer et al., 2016).

A study completed by Sherman et. al (2016) also showed that users get a sharp boost in mood or self-esteem when another user “likes” their post. Participants in the study, aged 13-18, were given a sample of pictures and they had to decide if they would “like” them or not. Each photo was shown and a random number of “likes” were shown in the corner of the photo. Some

of the photos were from each of the participants, so they would see their picture(s) throughout the experiment. As the experiment went on, it was proven that pictures with a large number of likes would get liked more often than pictures with fewer likes, even if the picture did not match the user's values or interests. If a person saw their picture with a satisfactory number of likes, they would get a sharp neural boost in mood and self-esteem, reinforcing the behavior that led to the posting of the picture or post (Sherman et al., 2016). The feeling of instant gratification users feel just before and after posting or even visiting social media is classified as positive for the mental health and self-esteem, however it has been shown that this feeling of gratification, belonging, and support does not always last as the user reverts back to in-person interaction or communication (Sherman et al., 2016, Bayer et al., 2016).

### **Social Media Negative Impacts on Mental Health**

Because social media is so accessible to adolescents across the world, many feel the need to consistently be available in case someone sends them a message, text, or picture. Due to this feeling of needing to be available, adolescents are constantly worried about missing out if they set their phone down even for a few minutes. A qualitative study completed by Woods and Scott, (2016) measured 467 adolescents between the ages of 11 and 17 using an online questionnaire about their sleep quality, anxiety and depression, and self-esteem and compared those with the social media use of each participant. This study contained 97% of participants that used social media regularly. Adolescents in this study claimed that over 86% of participants slept with their phones near their beds, even some holding it in their hand under their pillow due to the fear of missing out (FOMO) so they could feel a notification while they were falling asleep or already asleep. This type of learned behavior resulted in over 40 percent of adolescents in the study qualifying for "poor" sleep quality (less than six hours per night) because they felt they

needed to be available throughout the night. The FOMO leading to poor sleep quality directly results to lower self-esteem, anxiety, and depression (Woods & Scott, 2016). The fear of missing out is one of the most discussed emotions for adolescents today. The never-ending cycle of news and updates provided by social media makes it hard for adolescents to focus on what is in front of them, constantly worrying about what peers may be doing or latest trends. This feeling leads to other, more dangerous feelings and symptoms.

### ***Depression***

In each of the studies presented, social media usage was directly correlated with depression symptoms (Barry et al., 2017; Biernesser et al., 2020; Ellis et al., 2020; Padilla-Walker et al., 2019; Woods & Scott, 2016). A reoccurring theme among different studies was that adolescents consistently compare themselves to others on their selected social media platforms. Posts on social media are usually a “highlight reel” moment versus everyday life, something adolescents aren’t always able to comprehend (Barry et al. 2017; Ellis et. al, 2020; Woods & Scott, 2016).

### ***Comparison***

Social media platforms, regardless of type or amount of use are linked to depressive symptoms. In a qualitative study completed by Alfasi (2019), participants entered a laboratory to browse their news feed on Facebook for fifteen minutes, then completed measures about their self-esteem and level of depression, giving a detailed explanation of what may be causing those feelings. The results showed that the social comparison that comes with social media platforms, especially those that are less interactive, like text-based platforms, lead to more comparison by the user. There were three identified main types of comparison people use to get a feel for a self-evaluation. A similar comparison is when people compare themselves to people they feel they

are close in ability level or looks. Upward comparison is when people compare themselves to people they feel are better than them. Lastly, downward comparison is when the user looks at people they feel they are better looking or have more ability than. Each comparison results in different emotional outcomes, but regardless, they all make the user see their shortcomings. Even when the user knows they are on a social media platform, where the other users are only sharing a snapshot of reality, the user more often than not believes they are not living the ideal or perfect life like those around them, leading them to believe they are not worthy as students, friends, parents, or partners in life. As teens visit social media platforms and create posts, there is constant pressure to feel they are being validated by the number of likes, followers, comments, or friends on each platform. When they do not reach the same numbers as their peers, especially those they feel similar to or better than, that self-doubt can turn into a depressive state for many, which only is re-emphasized with each visit online. (Alfasi, 2019).

### ***Cyberbullying***

Adolescents in today's society, with unfiltered access to social media at all hours of the day, are at constant risk of judgment, or worse, bullying by others. A qualitative study by Radovic et. al (2017) interviewed 31 adolescents aged 13 to 20 years old with depression and learned that cyberbullying is one reason that adolescents today are more likely to feel depressed. More and more teens are posting more frequently than ever before, which unfortunately opens them up to judgments from their peers. Teens interviewed reported having comments made on their posts that were inappropriate or judgmental along with posts from their peers that were triggering to them because of their depression (Radovic et al., 2017). Throuvala et. al (2018) agreed the teens interviewed in their study had negative interactions on social media platforms when others would make negative comments towards their posts or pictures. The participants

also reported “inner-circle” type groups that would exclude certain friends. Adolescents that are constantly worried about the judgment of their peers, including when online, have a much higher likelihood of depressive symptoms (Throuvala et. al, 2018).

Depression is a major risk for adolescents that use social media platforms. Comparison and cyberbullying are two common ways that adolescents feel strained on social media, leading to less self-esteem, ultimately potentially leading to depression. Unable to differentiate “highlight-reel” posts from reality or get away from the judgment and bullying of their peers because of the 24/7 availability social media provides, social media use makes depression more likely in adolescents.

### ***Body Image***

Adolescents looking at social media platforms retain information about how they feel they should look, comparing their appearance to those they see on the various platforms. The different types of platforms (text-based vs. image-centric) have slightly different outcomes in how adolescents feel about themselves when they use the different apps. A study that specifically looked at this was completed by Marengo et. al (2017), surveying 598 adolescents (54.2percentt female) attending grades six through eleven, asking them about their daily use of social media in hours, both on Facebook and on what they called “highly visual social media”, which can be referred to for this writing as image-centric applications. Their responses were then sorted based on the amount of use and how the adolescents responded to a mental health questionnaire concerning body image and internalizing symptoms. The results are shown in the table below:

**Table 1**  
Correlations among study measures (N = 523).

		1	2	3	4	5
1	Age	—				
2	Gender (1 = Female; 0 = Male)	-0.02	—			
3	Time spent on Facebook (hours/day)	0.31**	0.05	—		
4	Time spent on HVSM (hours/day)	0.13**	0.26**	0.38**	—	
5	Body image concerns (BSQ)	0.07	0.41**	0.13**	0.17**	—
6	Internalizing symptoms (SDQ-SE)	0.05	0.44**	0.09*	0.21**	0.52**

\*p < 0.05, \*\*p < 0.01

**Table 2**  
Demographic characteristics and prevalence of body shape concerns and internalizing symptoms by type of social media platform (N = 523).

	Uses facebook		P	Uses HVSM		p
	Yes	No		Yes	No	
N (%)	298 (57.0%)	225 (43.0%)		431 (82.4%)	92 (17.6%)	
	%	%		%	%	
Sex			<0.05			<0.01
Female	52.5%	47.5%		87.5%	12.5%	
Male	62.1%	37.9%		76.5%	23.5%	
	M (SD)	M (SD)	P	M (SD)	M (SD)	p
Age	15.29 (1.38)	14.20 (1.45)	<0.01	14.91 (1.44)	14.39 (1.75)	<0.01
Body image concerns	66.99 (32.07)	61.75 (27.97)		67.28 (31.66)	52.78 (20.33)	<0.01
Internalizing symptoms	3.72 (2.57)	3.56 (2.39)		3.78 (2.53)	3.02 (2.19)	<0.01
Average daily use (Minutes)	73.33 (91.23)			154.12 (208.76)		
Frequent use (>2 h/day)	N = 40 (7.6%)			N = 152 (29.1%)		

NOTE: Marengo. Et al (p.66)

The results clearly show that there is a link between the use of social media and body image concerns. Adolescents that used social media more frequently were more likely to have body image concerns than those that would not. The difference in percentage for those that use Facebook was not quite as drastic (less than five percent) as those that used image-centric platforms at over 11 percent (Marengo et al., 2018 p. 66). How adolescents view their body is a huge motivator for self-confidence or the lack of self-confidence. Social media has a direct impact on how adolescents view themselves compared with not only their peers, but any person they see on social media.

A study in agreement was completed by Zimmer-Gembeck et al. (2020), where 283 age 13 to 18 were surveyed on use of social media and then broke down responses into themes such as appearance-related activity, online self-preservation, and appearance comparison. The results of this study showed that users of social media are anxious about their appearance in photos that are posted online, whether they are posting or a friend may be posting. As adolescents navigate

their own self-image, trying to adapt to look like the people they see on social media, or try to change their bodies for “likes” on social media can cause mental health issues.

**Anxiety**

Ultimately, adolescents post and participate on social media to gain acceptance from others. When adolescents post, that boost in mood quickly turns to anxiety as they await to see if what they posted will be accepted by their peers. When they hit post, they are hoping for a certain number of “likes” and potentially an increase in followers or friends. Adolescents are more likely to check social media even more frequently after posting to social media and if they do not receive the type of feedback they desired initially, can take down or edit their post. Each post to the public is an anxiety filled experience as they look for the gratification of others. Vannucci et. al (2019) completed a study that showed a link between the frequency of social media use and the likelihood of anxiety, depression, and family conflict among other issues and can be seen in the table below.

**Table 5** Latent social media use subgroup differences in predicting psychosocial outcomes

Time 2 outcome variable	Low social media use subgroup <i>M<sup>f</sup></i> ( <i>SE</i> )	High instagram/ snapchat use subgroup <i>M<sup>f</sup></i> ( <i>SE</i> )	High social media use subgroup <i>M<sup>f</sup></i> ( <i>SE</i> )	Latent subgroup comparison (omnibus test) Wald $\chi^2$	Effect size Cramer's <i>V</i>
<b>Internalizing problems</b>					
Generalized anxiety disorder symptoms	6.09 (0.25)	6.23 (0.22)	6.70 (0.74)	0.67	.02
Panic disorder symptoms	4.99 <sup>a</sup> (0.28)	5.53 <sup>a</sup> (0.26)	8.17 <sup>b</sup> (1.03)	9.48**	.07
Separation anxiety disorder symptoms	3.43 (0.17)	3.47 (0.14)	4.14 (0.54)	1.60	.03
Significant school avoidance symptoms	1.89 <sup>a</sup> (0.10)	2.18 <sup>b</sup> (0.09)	2.67 <sup>b</sup> (0.31)	7.94*	.06
Social anxiety disorder symptoms	5.80 (0.20)	5.30 (0.17)	5.61 (0.52)	3.14	.04
Depressive symptoms	15.15 <sup>a</sup> (0.61)	15.32 <sup>a</sup> (0.49)	21.83 <sup>b</sup> (1.73)	13.91**	.08
<b>Externalizing problems</b>					
Delinquent behaviors <sup>2</sup>	0.17 <sup>a</sup> (0.01)	0.21 <sup>b</sup> (0.01)	0.28 <sup>c</sup> (0.03)	19.03***	.10
<b>Family functioning</b>					
Family conflict	2.56 <sup>a</sup> (0.05)	2.70 <sup>a</sup> (0.05)	2.98 <sup>b</sup> (0.14)	9.45**	.07
Perceived family support	5.23 <sup>a</sup> (0.07)	5.22 <sup>a</sup> (0.07)	4.50 <sup>b</sup> (0.22)	10.57**	.07
<b>Friend functioning</b>					
Close friendship competence	3.01 <sup>a</sup> (0.04)	3.25 <sup>b</sup> (0.03)	2.97 <sup>a</sup> (0.09)	28.40***	.12
Perceived friend support	5.15 <sup>a</sup> (0.08)	5.60 <sup>b</sup> (0.06)	5.02 <sup>c</sup> (0.11)	22.37***	.10

Adjusted for baseline (Time 1) age, gender, race/ethnicity, perceived socioeconomic status, and the T1 psychosocial variable of interest for each model. Superscript letters that differ represent significant subgroup differences based upon Bonferroni–Hochberg post-hoc comparison tests

\**p* < 0.05; \*\**p* < 0.01; \*\*\**p* < 0.001

<sup>1</sup>Means estimated from subgroup intercept values generated from the BCH approach to examining latent social media use subgroup differences in continuous distal outcomes

<sup>2</sup>Values presented were back-transformed from the logarithm-transformed variables used in analyses

NOTE: Vannucci et. Al (2019, p.1482 )

There is a clear link tying anxiety to the use of social media, looking specifically at the rise in separation anxiety disorder (3.43 in the low social media subgroup to 4.14 in the high use), depressive symptoms, and risk of delinquent behaviors, all caused by or can lead to increased amounts of stress. It should be noted that the high social media subgroup was less likely to feel social anxiety disorder symptoms than the low use group, which can be rationalized by the amount of use minimizing the feeling of missing out, reducing that anxiety (Vannuci et. al, 2019). Ultimately, the experience many teens face while using or posting to social media can clearly be linked to anxiety-filled behaviors and feelings. There is a positive correlation between more use of social media and more anxiety for adolescents (Vannuci et. al, 2019).

### **Factors That Impact Mental Health**

Parental monitoring of social media use in adolescents is a factor that can have positive or negative impacts on mental health. Studies conducted by Biernesser et al. (2020) and Ellis et. al (2020) referenced that the more restrictive environment that parents create for their child, the more likely the child will try to go sneak their social media interactions or multi-task to accomplish as much as possible when they are allotted time. A study that focused specifically on the impact of parental monitoring of social media was completed by Padilla-Walker et al., (2019). This study had 1,155 adolescents complete a survey about the amount of social media monitoring their parents/guardians do at home ranging from autonomy-supportive to restrictive-active.

Results overwhelmingly showed that parents that employed an autonomy-supportive style of monitoring with their children resulted in their child having a lower chance of depression or anxiety. Likewise, parents that were restrictive-active in their monitoring style correlated strongly with a higher likelihood of their child having depression and/or anxiety (Padilla-Walker



et al., 2019). All three studies agreed that parents that are willing to discuss social media openly with their children yield the least likelihood that their children will have anxiety or depression (Padilla-Walker et al., 2019; Ellis et al., 2020; Biernesser et al., 2020). Parental monitoring, and the willingness to discuss issues with adolescents play a major role in how social media is perceived by adolescents. Parents and teachers alike need to be conscious that they are not overbearing in what is seen on social media, but also willing to discuss and process feelings that adolescents may be having from social media. This teaches adolescents how to cope properly and perceive social communication in a more positive way.

### ***Time Spent on Social Media***

Globally, it has been shown that the amount of time spent on social media has a direct correlation with mental health issues. In a study completed by Keles et. al (2019), Canadian adolescents that spent over two hours on social media were associated with psychological distress. In Europe, there was a strong relationship between heavy social media usage and both depression and anxiety. American adolescents showed the same strong correlation, as more time was spent on social media, it was more likely that the adolescents claimed mental health issues or self-esteem issues as shown in the results of a study completed by Steers et. al (2014). In a qualitative study of 180 teens, each of the participants were provided with a diary to report their feelings about their social media use, particularly Facebook. Upon reviewing results, it showed a clear correlation between the amount of time spent on social media and the increased likelihood of depressive symptoms.

Adolescents struggle to keep track of their own time on social media applications, usually leading to a misconception of the time they spend on the apps. In a study completed by Orben et. al (2019), adolescents in the United States were asked to report usage of screen time in

general and when they used screens. Much of their time was used on social media, but other uses such as television, movies, or streaming services also counted toward their time. Many of the adolescents were off in their reporting of screen time, almost always assuming they spent less time on screens than they did. This study did not find a statistical association between screen time in general and mental health or wellbeing. In fact, there was no mention at all of social media on potential impacts on mental health (Orben & Przybylski, 2019).

A hypothesis on why the amount of time on social media plays such a role in mental health is made in a study by Vannucci et. al (2019), in which over 1,500 seventh and eighth-grade students in the New England area were given surveys at the beginning of the school year in 2016 and then again at the end of that same school year regarding social media use and multiple mental health questionnaires. From their research it was hypothesized that the time being spent on social media was now replacing time that adolescents would normally be spending socially interacting in person with their families, which is likely to boost self-esteem and self-image. Spending that time on social media, as proven in the research above has a much higher likelihood of lowering self-esteem, leading to mental health issues. Less time interacting in person also leads to less ability to foster self-growth, make authentic connections, and the ability to learn how to express themselves uniquely, all things that are much more likely without social media (Vannucci & McCauley Ohannessian, 2019). Time on social media is a constant precursor for mental health symptoms in adolescents. On average, the more a person spends on social media, the more likely they will have mental health symptoms (Orben & Przybylski, 2019, Vannucci & McCauley Ohannessian, 2019). Vannucci & McCauley Ohannessian, 2019)

### ***Number of Social Media Accounts***

Just as the amount of time on social media can be correlated with mental health, so can the number of social media accounts. Adolescents on average range anywhere from three to eight accounts on average. Over the last five years, it has become more common for an adolescent to have multiple accounts on one platform. Throuvala et. al (2019) completed a qualitative study aiming to identify the motivations behind adolescent social media use. The study asked teens about social media use in focus groups that were 60 minutes in length. Questions were asked about the reasons teens used social media, how they felt about themselves before and after, and what they did when they are on social media. Similar to FOMO, the adolescents felt the more social media accounts they had, the less they would miss out on socially. This created a cycle of sorts, where the adolescents feel the need to check more accounts, which has them spending more time on social media, more accounts to compare themselves with others on, and more FOMO (Throuvala et al., 2019).

Barry et. al (2017) produced similar results, showing a strong correlation that as the number of social media accounts increased, so did FOMO. Adolescents with more social media accounts are more likely to consistently check their phones for notifications or new information. The constant need to check social media from having multiple accounts makes it difficult for adolescents to focus on in-person interactions because of the anxiety that they are either missing out on something on their social media accounts, or the feeling they need to be available.

Because of this, adolescents are more likely to leave their phones out in public places, like a restaurant so they can see the notification pop up. This brings a boost of excitement for the adolescent but also creates a feeling that those around them are not as important as their social media presence. In a study by Oberst et. al (2016), 1,468 Latin-American social media users between the ages of 16 and 18 were surveyed about their social media usage and how it impacted

social interaction, why they used social media, and how they felt about themselves. Results showed that the teens surveyed felt like they were unable to cope with real-life environments and adversity, but they were more equipped to handle these things on social media sites. This was a direct correlation with the number of social media accounts the teens had. There was also a very direct correlation between the number of social media accounts or the “intensity” in which they used social media, and issues like depression, anxiety, FOMO, and negative social consequences regardless of the type of platform each participant used (Oberst et al., 2017). Just like the amount of time on social media, the number of accounts plays a role in mental health. The more accounts an adolescent has, the more likely they are to have mental health symptoms.

### **Conclusion**

Social media use has a direct impact on the mental health of adolescent users. There are potential positives to social media, if used correctly, such as emotional support, the feeling of belonging, and instant gratification (Sherman et al., 2016). Unfortunately, more often than not, the negatives of social media outweigh the positives. Social media directly plays a role in the likelihood that an adolescent will display symptoms or feelings of anxiety, depression, loss of sleep, FOMO, and body image concerns (Marengo et al., 2018, Woods & Scott, 2016).

However, there are potential ways to lessen the hazard that social media presents. Parental monitoring plays a huge role in how social media impacts adolescents. Parents that are willing to discuss issues openly and honestly with their child are more likely to have children that can positively cope and see social media for what it is, “highlight-reel” type experiences from other users that do not always depict real life scenarios. There are important factors to consider when adolescents are using social media that have a direct impact on mental health. The amount of social media accounts and time spent on social media are very good predictors of the likelihood

that an adolescent will have mental health symptoms (Throuvala et al., 2019, Orben & Przybylski, 2019). This literature review discussed how the rise in social media impacts the mental health of adolescents. In chapter three, insights from research, applications, future studies, and a conclusion are discussed.

### **Chapter Three: Summary**

#### **Insights Gained from the Research**

There are multiple insights gained from the research presented. If used properly, social media can provide adolescents with an outlet to relieve stress, and connect with others that may have similar issues or beliefs. Social media also offers an outlet that allows students to speak their minds and express themselves. Appropriate monitoring by parents and educators, featuring open communication about what is seen on social media and what responsible usage looks like, can create a learning experience for adolescents. This monitoring plays a huge role in how social media is received by adolescents.

Conversely, adolescents that use social media are more likely to have depressive symptoms, anxiety, sleep issues, and poor self-image. Adolescents are at a stage where opinion of others form much of their habits and behaviors. Social media platforms take that need and give adolescents a place to express themselves in hopes of gaining positive (or negative) recognition from others (Padilla-Walker et al., 2019). The constant fear of missing out on a text, like, comment, or post leads to an anxiety-filled life for many adolescents, eventually leading to self-doubt and depressive symptoms,

Using the knowledge gained from the research presented allows educators to lead with understanding and empathy for what adolescents may be feeling or going through. Understanding the likelihood that the students in each classroom are not only using social media, but the potential ramifications of that use allows educators to lead equitably and create better learning opportunities for students.

#### **Application**

Based on the provided research, social media can have the ability to provide a positive impact on the mental health of adolescents but is more likely to do the opposite. Educators can apply this information to a school setting, teaching skills such as coping mechanisms, stress relief, the importance of sleep, and both in-person and online communication skills that are relevant for today's adolescents. Teachers should be provided with updates on the latest trends in the social media landscape (ex. Tide pods) so they are aware of what may be impacting behaviors and how to appropriately react to those behaviors.

Teachers also need to be provided with trainings on how to create lessons that promote student social interaction in a positive, healthy way. Lessons should include small group discussions, large group discussions, and opportunities for students to hear other perspectives in a safe environment. More in-person interaction will benefit students, providing learning opportunities not only in the curriculum being taught, but how to appropriately respond socially to those around them.

### ***Administration***

Administrators need to take this information into consideration when creating and adapting school policies each year. School-issued ipads, laptops, computers, and tablets need to have restrictions on them as far as the content that is able to be viewed on them. In addition, administrators need to make decisions on personal devices. As the research shows, there is a direct correlation between social media use and anxiety, depression, body image concerns, and self-esteem issues. Each school administrator needs to decide on how much cell phone access students will have while in their building. Policies have ranged from allowing students use all day to only during passing times or lunch, with some schools not allowing phone use at all throughout the day. Because every school has different needs and population, each administrator needs to take a close

look at their student population and make the best decision for their district. At minimum, based on research, personal phone use should not be allowed during instructional time unless there is an emergency.

Administrators also need to look for curriculum or advisory materials that provide students with the tools to be successful online. Social media and internet use are not going away, so schools need to provide students with the necessary skills to become productive members of society outside of the building when they graduate. Almost all careers require some sort of online presence or knowledge. Almost all adults in this generation will continue to use social media, so finding a way to provide them with the tools to be self-aware online is a necessary step for schools to take.

### ***District Level***

At the district level, monitoring student online/social media use is also an important topic to discuss. Monitoring social media openly and honestly results in the most positive experience for adolescents, leading to a better understanding of themselves and what they are seeing online. While this is not possible at the school level, being able to view what students are viewing on school grounds and measure the amount of use by the students is important. There is a direct correlation between screen time and a higher likelihood of anxiety and depressive symptoms, so monitoring and limiting the time students spend online is a valuable tool for school districts.

### ***Limitations of Research***

Some limitations of the research provided are that it is almost impossible to find adolescents that are not online or using social media. This makes it hard to find a “control” group to compare social media users with. Would the FOMO, anxiety, and depression symptoms also be higher for adolescents that are not online at all, feeling like they are missing out on what their friends are posting, similar to those that use social media frequently? Another limitation of the



studies was sample size. Each study provides a snapshot of adolescents in an area, but that may not represent nationwide data.

### **Future Studies**

Future studies will need to be done to continue to gauge the impacts of social media. Social media will continue to evolve and so will the response from adolescents to that social media. Some potential future studies would include having adolescents scroll their own newsfeeds and provide feedback in a qualitative study about how they feel looking at their peer's postings. Identifying their feelings when they are included in a post compared to how they feel when they are not. Another potential study would be having a large group of adolescents use social media for one month as much as they would normally and then completely taking social media away and completing surveys after each experience to identify mental health symptoms and risks. Comparing the use of social media and complete abstinence with the same group of adolescents would provide a clearer picture of how social media impacts their mental health. Lastly, a study done within schools would be beneficial. If schools within the same district or districts that are close geographically would implement different internet and personal cell phone policies, then surveying students and parents to see which one most positively impacts mental health and provides the best learning environment.

### **Conclusion**

The studies analyzed in this writing provided valuable information on how the rise of social media use impacts mental health of adolescents today. Each of the studies presented provided different methodology, participants, and methods yet produced similar results. In the end, the research presented shows a correlation between the increased use of social media and a variety of mental health symptoms. This is valuable information for educators: understanding the students

that are walking through the door each day and the potential burdens they carry allows educators to lead in a positive way equitably and inclusively.

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