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Adolescents & Social Media Use

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Abstract

This research explores the effects of social media use by adolescents. Five themes were identified: [1] social media and adolescent mental and physical well-being, [2] social media and adolescent problematic usage, [3] social media and adolescent academics, [4] social media and adolescent family connections, and [5] social media benefits for adolescents. The paper goes on to analyze how practices at the Middle School where I teach could be aligned with research and then questions implications for future research and transformed practice.

Keywords: adolescent, social media, well-being

Adolescent & Social Media Use

As the world continues to utilize social media platforms as forms of entertainment, communication, for academic and educational purposes, and a means to creatively express themselves in a multitude of human genres, the use of social media platforms by adolescents and the effect of their use on adolescent overall well-being have become a topic of research and inquiry. This literature review will assess the research on internet and social media use and its effects on adolescents' overall well-being.

Context

This paper will look to provide an understanding of an area that is fairly new throughout the world, as the number of adolescents using social media continues to grow and concerns and benefits continue to rise regarding direct effects of online internet use and social media platform usage. This paper will review literature that is rooted in examining research studies focusing on adolescent overall well-being, including mental and physical well-being, depression, problematic usage, FoMO (the fear of missing out), cyberbullying, academics, family connections and potential benefits of social media use by adolescents.

Locally, connections can be seen by educators in the classroom; daily, in the middle school where I teach, students are reminded they must put their phones away or phones will be confiscated for the class period or until the end of day. Smartphones, iPads, tablets, even the school-provided laptops provide students with easy online access to social media platforms as students find ways around the built in technology that blocks accessing these sites from school provided laptops. As ownership of devices that students use to access the internet and online social media platforms rises, so grows the use of those platforms.

Researchers have spent the last two decades questioning, researching, and studying online internet and social media usage and platforms and effects on adolescent well-being. The results are evident: the rise in social media use correlates to adolescent ownership of devices that access the internet. This suggests a regional need for social media awareness campaigns for parents and guardians, educators, medical practitioners, and public health agencies that have growing concerns.

The American Psychological Association (APA, 2023) published a nationwide health advisory on social media use in adolescence. The article probed how psychological scientists have examined areas of potential negative and beneficial effects of social media use by adolescents. When a nationwide health advisory has been issued that has focused on adolescent social, educational, psychological, and neurological development in relation to social media use by adolescents, this is a significant indicator that shedding light on the topic of adolescents and social media use should be a major concern to all potential affected stakeholders. This paper seeks to understand some of the more prevalent mental health and overall well-being pitfalls and benefits of the use of social media that adolescents experience when using online internet and social media platforms.

Importance

It is important to recognize that adolescents today are growing up and being raised in societies where the use of social media is the norm. My beliefs in the importance of understanding the effects of social media use and exposure extend to family connections and social media usage. I have a great niece that just turned two years old and there is a new post every single day of her life about her experiences, growth and the love that is showered on her

life. My concerns are for her safety, and I wonder about the long-term effects of this kind of attention and exposure.

When examining social media from the perspective of caring for my middle school students, my concerns are included in their overall well-being. This issue is important to me because I want to be able to support my students beyond their academic needs and to be prepared to understand their socio cognitive development and the effects of online internet and social media platform usage and encourage positive online interactions and behavior. This desire to support my students comes from the opportunity that I received this year to be an advisory teacher in addition to my MLL position. By researching these issues, I will be become a better educator, in a position to help parent(s) and guardian(s)s in my community with their concerns regarding their students possible problematic use, as well as the effects of online internet and social media platforms on their overall well-being, including sources to help families understand both the benefits and pitfalls of social media use by their adolescent and heighten their overall awareness of social media use.

Purpose

What we do not know has the potential to create opportunities for gain and improvement or provides opportunities for vulnerability or harm. According to the American Psychological Association (APA, 2023), the area of research of the effects of social media use by adolescents is a swiftly growing and evolving topic and “officials and policymakers, including the U.S. Office of the Surgeon General Dr. Vivek Murthy, have documented the importance of these issues and are actively seeking science-informed input” (p. 3). Furthermore, The U.S. Office of the Surgeon General’s (2023) advisory report, *Social Media and Youth Mental Health*, informed readers:

At this time, we do not yet have enough evidence to determine if social media is sufficiently safe for children and adolescents. We must acknowledge the growing body of research about potential harms, increase our collective understanding of the risks associated with social media use, and urgently take action to create safe and healthy digital environments that minimize harm and safeguard children's and adolescents' mental health and well-being during critical stages of development (p. 4).

The purpose of this project is to understand that due to the access adolescents have to internet and social media platforms, those that care for adolescents need to become aware of the potential risks and benefits that develop and have a better understanding of the potential social media lives of adolescents.

Vogels et al. (2022) stated that “about one-in-five teens visited or used YouTube ‘almost constantly’” (p. 4). TikTok has established itself as the second most used social media platform amongst teens and adolescents but besides these platforms there are others that adolescents use, including Instagram, Snapchat, Facebook, Twitter, Twitch, WhatsApp, Reddit, and Tumblr. The top five used platforms are YouTube, TikTok, Instagram, Snapchat, and Facebook. Further data by Vogels et al. covered how adolescents reach and use these social media platforms, how adolescents have access to social media sites (SMS) via the use of smartphones, tablets, laptops, and gaming consoles and data that detailed nearly all teens (95%) have access to smartphones.

Focal Questions

- What are potential mental health issues of adolescent social media use?
- What are potential benefits for adolescent social media usage?
- What are problematic usages of social media by adolescents?

- How does social media use affect adolescent education?
- How are families affected by adolescent social media use?

Literature Review

This literature review will investigate research studies and articles that explore the effects of adolescent internet and social media usage with the purpose of objectively examining, reviewing, and reporting the findings. In reviewing the literature, I have identified six themes around adolescents and social media use, including well-being, depression, FoMO (fear of missing out), cyberbullying, scholastics, and monitoring of adolescent social media use.

As social media and the use of technology have become intrinsic parts of our daily lives, today's adolescents are being brought up in a world in which they have never known a life that does not include the use of internet and social media platforms. The study of social media's effects on adolescent mental health is an important topic because societies should be aware of the influential hold that social media has on our youth. Understanding both the negative and positive issues that affect adolescents are necessary steps in recognizing the vulnerabilities and strengths that social media has to offer adolescents.

To provide a foundation for the focal questions for this literature review, it is important to weigh analytical data and statistics regarding adolescents and social media usage and U.S. adolescents between the ages of 13 and 17 are on the internet almost constantly. The U.S. Surgeon General's (2023) report suggests:

More research is needed to fully understand the impact of social media; however, the current body of evidence indicates that while social media may have benefits for some children and adolescents, there are ample indicators that social media can also have a

profound risk of harm to the mental health and well-being of children and adolescents (p. 4).

With the growing concerns and the number of adolescents using social media platforms and the access through their tech tools and the hours and minutes spent using social media, concern over these issues has created avenues for investigative research studies.

Social Media and Adolescent Well-being

In this section I will review ten research studies and articles related to social media use and adolescent well-being. The first study discussed statistics to provide an idea of how much adolescents are using social media. The following reviews include four studies related to positive aspects of social media use by adolescents, one study about the negative effects of social media use by adolescents, one study that speculates on the relationship between narcissism and adolescent social media use and three studies about adolescent mental health and social media use.

Vogels et al. (2022) provides a statistical overview of the issue through a quantitative research study which offered findings that when reflecting on the amount of time they spent on social media 55% of U.S. teens say they spent about the right amount of time on social media, while 36% say they spent too much time on social media with only 8% of teens reporting that they spent too little time on social media. Methodology was based on a self-administered web survey that took place from April 14 to May 4, 2022, and included a sample of 1,316 dyads which were comprised of one U.S. teen from ages 13 to 17 and one parent. The margin of sampling error was plus or minus 3.2 percentage points. The study covered how adolescents use social media platforms, which platforms they prefer to use, how they have access to social media

sites (SMS) via the use of smartphones, tablets, laptops, gaming consoles and data that detailed nearly all teens (95%) have access to a smartphone with 54% of teens reporting that it would be hard to give up social media and 97% reported that they use the internet daily. With 97% of teens using the internet daily, the next study in this literature review focuses on the positive and negative effects of adolescent well-being in connection to their use of social media.

Four research articles detailed positive aspects of adolescents and social media use.

Weinstein (2018) in a study on the positive and negative effects of social media usage on adolescent well-being defined well-being as a complex construct that involves the best possible psychological experience and functioning. Data collection included self-reporting both negative and positive effects of social media usage by 568 high school students via survey responses. From the 568 survey responses and data analysis, the study narrowed down participants to a subgroup of twenty-six participants that were then interviewed, and Weinstein used adolescent perspective and voice with examples of verbatim (with assured confidentiality) responses in a complex interview process where data was coded and analyzed using inductive thematic analysis. Weinstein's findings discovered four specific functional dimensions of social media use which were categorized as self-expression, relational interactions, exploration, and browsing. Positive and negative experiences were investigated for each of the four functional dimensions and then Weinstein used a sample of subdimensions determining that social media experiences are individual experiences that can be characterized by both positive and negative affects across multiple dimensions. Through the lens of self-expression, adolescent voice provided affirmation and concern about judgement by others. Teens expressed that they felt positive emotions when sharing their "lives, interests, and humor and receiving positive feedback on their posts, as well

as to curating and revisiting their digital footprints” (Weinstein, 2018, p. 3610). Feelings of curating could be described and compared to one looking through an old photo album and reminiscing of memories and experiences, providing nostalgic experiences for adolescents. Comparing self-expression and judgment concerns, adolescents worry about negative or zero responses to their social media posts, or other taking screen shots of their posts and digitally manipulating their photos and posts. This type of worry can cause adolescents to become stressed and self-conscious about posting and sharing on social media. Weinstein proposed that this study specified that through the voice and perspective of adolescents, there is a general positive affect that they experience, adolescents neither deny nor avoid the potential negative experiences that can happen through social media usage. There are underlying themes that crosscut the descriptions provided by the adolescents in this study of how positive and negative emotions related to aspects of social media use are related to self-disclosure, validation, and concerns about acceptance and belonging. These underlying themes are normal core components of adolescent development and friendship that predate social media and these interactions are a part of the makeup of adolescent socioemotional and mental well-being.

Beyens et al. (2020) inspected associations between social media use and well-being within single adolescents across multiple points in time and focused on the middle adolescence stage because adolescent experience the most significant fluctuations in well-being during this stage of their individual developments. They sampled adolescent “experiences six times per day for one week to quantify differences in their susceptibility to the effects of social media on their momentary affective well-being” (p. 1). Rigorous analyses of 2,155 real-time assessments showed that the association between social media use and affective well-being differs via

individuality and a majority of adolescents do not experience any short-term changes in well-being related to their social media use, if they do experience changes in well-being related to social media, findings designated that these are more often positive than negative.

Senekal et al. (2022) conducted a systematic review to investigate research that related to the effects on psychosocial development via social media usage. “The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement to guide transparent reporting and methodological rigor” (p. 3). Methods included the review of twenty studies published between 2008 and 2019 (8 of which did not include samplings methods used) with findings that showed complex relationship between social media and adolescent psychosocial development including potential benefits of social media use that supported identity development and the maintenance of existing peer relationships. Engagement with peers online was linked to better mental well-being, perceived social support mediated the negative impacts on adolescent well-being and “high levels of perceived friend support offered protection against developing depressive symptoms or low life satisfaction after being victimized via Facebook” (p. 9). Other results specified that social media was a useful platform for adolescents to learn and to create diverse and dynamic social networks that had the potential to be beneficial for maintaining and improving the quality of existing relationships where are important parts of adolescent identity development.

Antheunis et al. (2016) investigated the role of social media usage in early adolescents’ social lives by examining the relation between social media use and their social lives including friendships and the bridging and bonding of social capital. Antheunis et al. conducted a survey in October 2010 with 3,068 early adolescents between 11 and 14 years of age from fifteen different

schools in distinct parts (rural and urban) of the Netherlands. Social media usage was measured in three categories, one of which included time spent on social media sites. Connectedness was measured with a 5-item questionnaire, and the third category, quality of friendships was measured on the Network of Relationship Inventory-Revised. Results found that social media use had a positive relationship in association with adolescent “friendship quality, bridging social capital, and bonding social capital and findings implied that when early adolescents spent more time on social media sites, they had more friends there, and felt more connected” (p. 363). The use of social media created the opportunity for higher levels of friendship quality, a higher level of bridging social capital and provided opportunities for them come in contact with new people facilitating the feeling of belonging to a larger community, bonding with new friends and broadening their support group by having more friends to turn to for advice and to talk about personal problems providing positive benefits for social media use and well-being.

While there is a lot of evidence for positive effects, one study found negative effects.

O’Reilly et al. (2018b) used adolescent voice and perspective in their study to survey empirically how social media is viewed by adolescents in terms of their point of view of mental well-being. A qualitative design was used to consider the exploratory character of the study through a macrosocial constructionist perspective because this promoted a revealing and clearer layer for analysis. Participants were recruited from schools in Leicester and London in the United Kingdom, and these cities were chosen so that the study could provide diversity of socioeconomic and ethnic backgrounds. During a 3-month period in 2016, six focus groups were conducted with adolescent participants from ages 11–18 years. Questions for the focus groups were intentionally planned to be broad to foster a participant driven and child-centered

engagement and sampling adequacy was assured through the process of data saturation. Data was analyzed via thematic analysis for data driven focus and meaning making intention so that information provided by participants that was deemed important could be identified and three levels of coding framework helped to create a final coding map. Findings of this study provided a consensus amongst adolescents that the impact of social media has a negative effect on adolescent mental health and well-being. Part of the negative aspects and impacts of social media was attributed to usage with some reporting that they are on social media all day long, despite agreeing that the impacts of social media usage can be not only risky, but dangerous to their mental health and well-being. Adolescents agreed as a group to the perspective of negative impact of overuse, risky and dangerous social media behaviors, but they did not apply these concepts to themselves. This study found that there were specific areas in which the adolescents attributed to negative impacts of social media usage and the groups agreed that social media can directly causes stress, depression, low self-esteem, and suicidal ideation as well as behaviors of bullying, trolling and social media addiction. The study concludes that social media is an intrinsic part of life and that there should be ways to utilize social media to promote positive well-being that should also equip adolescents to manage the possible dangerous effects, which could be done through better education of the negative impacts and understanding the meanings of mental health and well-being.

In another negative view, one study found connections between narcissism and adolescent social media use.

James et al. (2017) questioned how narcissism could be a contributing factor to the digital lives of adolescents and they also indicated individuality through the term of personality traits as

their article notes that “youth well-being, social connectedness, and personality traits, such as empathy and narcissism, are at the crux of concerns often raised about the impacts of digital life” (p. S71). By examining existing research work that addresses the happiness, life satisfaction, prosocial attitudes and behaviors of adolescents, their research found that a “complex interplay of individual factors, type of digital media engagement, and experiences in media contexts informs outcomes related to well-being, social connectedness, empathy, and narcissism” (p. S71). Additionally, they implored that more research is needed to create informative practices that support positive well-being and social connectedness as researchers scrutinize and investigate ways to uncover how, where, when, and for whom digital media affect adolescents.

Three research articles detailed positive aspects of adolescents and social media use.

O’Reilly et al. (2018a) performed a qualitative study with the aim to explore perceptions that social media might be leveraged towards promotion of mental health amongst adolescents between 11 and 18 years of age. In 2016, participants were recruited from London and Leicester with eight different focus groups. Three themes reflected the scope of the main project, which were “conceptualizations of mental health/illness, opinions and experiences of social media, and the potential of social media as a source of mental health promotion. Sampling adequacy was achieved through the process of saturation” (p. 983). Results indicated that consideration of adolescent voice and perspective as well as educational and mental health practitioners, it became clear that from their point that there is potential for social media to provide mental health benefits in the form of information seeking, support and a tool for relaxation, enhancing well-being.

Wishart et al. (2022) conducted a research study titled the Self Appreciation Project which was an exploratory campaign in March to June 2021 that examined how individuals engage with mental health promotion on Instagram and Twitter and this exploratory study sought to examine the usefulness of Instagram and Twitter as platforms to implement a mental health promotional campaign. Methods of this online study included using common hashtags associated with mental health via the platforms Instagram and Twitter. Due to the popularity amongst youth of these social media platforms, they presented an immense opportunity for health promotion, through targeted messaging and creating influential mental health campaigns. Results of the campaign noted that during the first four months, SAP gained 96 Twitter followers and 392 Instagram followers. Forty-three original posts were shared on each account of which twenty-two were “informative,” 17 were “advocacy-based”, and four placed in a category labeled “other”. Wishart et al. pointed out “Instagram and Twitter both have the potential to share mental health information and serve as platforms for a mental health campaign” (p. 4). The study provided useful for creating social media mental health promotion campaigns and interventions for mental health.

O’Reilly et al. (2022) performed an investigative research study to answer the question to ascertain specific aspects of social media engagement that adolescents consider as positive for both their own mental health and the mental health of their peers. A macro-social constructionism theoretical framework was used to reflect the view of how childhood and children are constructed and change over time to account for how adolescents actively engage with social media through the lens of their lived experiences as they transform and develop. The data collection process included audio-recordings of six focus groups with adolescents from ages

11–18 years living in London and Leicester (UK), which included thirty males and twenty-four females from diverse ethnic groups. The focus group created an environment that allowed for broad dialogue to foster participant-driven and person-centered discourse, which reflected three core issues of the main project, including how mental health and illness is perceived by adolescents, opinions and experiences of adolescent using social media, and the potential for mental health promotion and psychoeducation via social media. Findings were categorized into four themes, the value of social media for social connections, building relationships and peer support, all of which are important for maintaining well-being.

Social Media and Adolescent Depression

This section will review six research studies and articles related to the effects of adolescent internet and social media with potential ties to depression. Four of these literature reviews discussed depression related to body image and two of these literature reviews discussed psychological distresses in relation to depression.

The following four studies connect depression and psychological distresses adolescent social media use.

Radovic et al. (2017) sought to link how psychological distress could be influenced by social media use among a group of adolescents that included eighteen female and five male adolescent participants that had previously been diagnosed with depression. This was a qualitative study that explored social media descriptions as provided by the participants in which participants described both positive and negative uses of social media. Social connections, content including entertainment, humor, and content creation were descriptions given for positive social media use while negative use was described as risky behavior, belittling self in

comparison to others and cyberbullying. Three other descriptions for which the participants gave additional detail included “oversharing (TMI),” “stressed posting” (negative social media posts) and encountering “triggering posts.” These adolescents, through the lens of treatment for their depression, used shifts in patterns of their social media to focus on using the perceived positive patterns as opposed to negative social media use. From July 2013 to September 2014, Radovic et al. used a convenience sampling strategy (as part of a larger study on adolescent depression) to recruit participants from the ages of 13 to 20 who were diagnosed with depression and receiving current treatment. Data collection included assured confidentiality and semi-structured telephone interviews or private in-person patient room interviews. Verbatim transcriptions and audiotapes were used but no identifiers were removed to support assured confidentiality. Radovic et al. claimed that adolescents experienced both negative and positive consequences of social media use but that many participants learned from their experiences through treatment and maturation. Using social media positive practices were noted to be useful as serving as practical guidance for other adolescents, parents, and clinicians. While learning to use social media for positive practices, participants also identified and chose to discontinue negative social media behavior like interacting with strangers or being a party to negative online associations. Strengths of this qualitative study shows the relationship between social media use and adolescent depression and Radovic et al., noted findings included characteristics of social media used as purposeful patterns, which could show future quantitative studies might help delineate what type of social media usage could be associated with psychological distress. Limitations in this study included participants unwilling to or having technical difficulties in opening their devices and sharing/displaying their content.

Shafi et al. (2021) emphasized that social media usage (SMU) or intense social media usage has been compared to similarities in addictive disorders and their research study contemplated the effects of SMU on clinical measures and biomarkers of stress in healthy and depressed adolescents. Participants in this study were adolescent patients aged 13–17 years, in grades 7 to 12 and they were in treatment for depression in an inpatient psychiatric unit at a large medical center. Healthy control adolescents with matched comparisons for age, sex, and race were recruited with flyers and advertisements and the enrollment period took place from 2018 through 2019. Participants were to refrain from alcohol use, caffeine, and exercise for 24 hours before the study and fasted for 2 hours prior to providing saliva samples and then quantified salivary cortisol levels were evaluated before and after SMU and the study used a salivary α -amylase kinetic enzyme assay kit (Salimetrics) to quantify α -amylase levels. This was the first study of its kind to use physiological biomarkers and clinical measures to assess the potential impact of a brief (20-min) period of SMU after at least 24h of abstinence and Shafi et al. emphasized that “depressed participants had an elevated physiological stress response after acute SMU, as indicated by significant increases in salivary α -amylase and cortisol” (p. 153). Results “suggest that depressed adolescents were more physiologically reactive to acute SMU than controls and depressed adolescents may be more physiologically reactive in general, which may cause them to be more susceptible to elevated stress biomarkers (Shafi et al., 2021, p. 155).

Kreski et al. (2021) studied nationally representative data that was collected from 2009 through 2017 of US 8th and 10th grade students and investigated the relationship between social media use and depressive symptoms among adolescents. In 2009 through 2017 a Monitoring the Future (MTF) survey included an annually conducted nationally representative cross-sectional

survey of school-attending adolescents from schools where a multistage random sampling design was conducted for two years. Kreski et al. argued that findings directed that daily social media use was not a consistent risk factor for depressive symptoms among adolescents in the United States and that these findings were consistent with a growing body of evidence that demonstrated that social media use was not a risk factor for adolescent depressive symptoms, and that known risk factors for adolescent depression and the risk conferred by social media use was not meaningful.

Kelly et al. (2018) assessed whether social media use is associated with adolescents' depressive symptoms, and sought explanatory pathways via online harassment, sleep, self-esteem, and body image. Methods included population-based data from a UK Millennium Cohort Study (MCS) that included 10,904 14-year-old participants. The MCS consists of children born into 19,244 families between September 2000 and January 2002 in the UK. "Multivariate regression and path models were used to check associations between social media use and depressive symptoms" (p. 1). Data was analyzed on "singleton-born cohort members for whom data on depressive symptoms were available" (p. 61). Higher social media usage correlated to online harassment, poor sleep, low self-esteem, and poor body image, which was related to higher depressive symptom scores and indirectly to low self-esteem.

The following three studies connect depression and body image to adolescent social media use.

Maheux et al. (2022) pointed out that screen time and social media use are associated with depressive symptoms in adolescents. The social media experience that many adolescents face is the internalizing of their own physical appearance as posted on social media and that this

type of self-objectification and comparison of self to others may be more detrimental to adolescent depressive symptoms than the actual amount of time spent on social media.

“Appearance-related social media consciousness (ASMC) is the preoccupation with one's physical attractiveness in social media photos and has been associated with depressive symptoms above and beyond frequency of social media use in prior cross-sectional work” (Maheux et al., 2022, p. 264). Methods used in their study include a longitudinally 1-year diverse sample of high school adolescents in the Southeastern US. ASMC was found to be “associated with higher depressive symptoms 1 year later, even when controlling for time spent on social media,” (p. 264) which heightens the importance of physical appearance concerns in relation to social media that goes beyond connections to problematic usage and that development of depressive symptoms amongst adolescents is more tied to body image than frequency of use.

Choukas-Bradley et al. (2022) considered how the role of social media through the lens of developmental–sociocultural framework potentially feeds into body image concerns, which can then lead to depressive symptoms including eating disorders. Understanding body image concerns is important to recognizing connections between social media usage adolescent mental health. The context of the framework of this 2022 review focuses on girls and Choukas-Bradley et al. warned that they “provide empirical evidence for how SM (social media) may increase adolescent girls’ body image concerns through heightening their focus on other people’s physical appearance,” (p. 681) which is done through the exposure that they experience in visual unrealistic images of others on social media. Approval is sought via “likes” and peer approval of photos/videos etc. of their own appearance in connection with “SM consciousness” (Choukas-Bradley et al., 2022, p. 681). Images have often been altered in search of the perfect

social media picture, which encourages the over valuing of appearance, and this increased adolescent girls' focus on other people's physical appearance in comparison to their own image and ideas of acceptable or popular body image. Choukas et al. informs that there is a growing body of work that suggested focusing on other people's photos than the actual time spent on social media, is associated with adolescent girls' body dissatisfaction, eating disorders and depressive symptoms.

Social Media and Adolescent Addiction

This section will review four research studies and articles related to the effects of social media use by adolescents with ties to addiction.

Cha and Seo (2018) discussed social media addiction and provided a more in-depth description of social media addiction as they explained that like internet addition, social media use addiction shares similar characteristics including impulse control disorders via pathological usage. Cha and Seo briefly noted how behavior addictions “have seven core symptoms in common, that is, salience, tolerance, mood modification, conflict, withdrawal, problems, and relapse” (p. 2). With this type of alarming description, these research studies are aligned with adolescent problematic social media usage. Participants were 1824 middle school students who also used smartphones, they were randomly sampled from strata based on city, age, and sex and face to face interviews with questionnaires were conducted to gather data in which 563 participants were identified as at risk for smartphone addiction according to their scores on the Smartphone Addiction Proneness.

Caner et al. (2022) showed the possible connections between the visual world of social media, body image, eating disorders and social media addiction and noted that “about a quarter

of adolescents are social media addicts” (p. 8431). How one should look and appear due to the masses of visual imaging, particularly on social media platforms where images are the expectation, exposes adolescents to these social media promoted popular ideals of appearance and Caner et al. stated that this could cause appearance-based anxiety and lead adolescents on a path to develop binge-eating behavior disorders. Methods for this research included a descriptive correlational cross-sectional study to determine social appearance anxiety, emotional eating behaviors and social media addictions of adolescents. Participants included 1363 adolescents, residing in the Central Anatolian Region of Turkey. Data collection included a questionnaire form of 18 questions and specific scales were used including the “Social Appearance Anxiety Scale (SAAS), Social Media Addiction Scale (SMAS), and Emotional Eating Scale (EES-C)” (Caner et al., 2022, p. 8424). Findings showed that Festinger’s Social Comparison Theory framework helped to shape and explain how Caner et al. indicated that body image, well-being, jealousy, and appearance anxiety in adolescents and young adults combined with social media use and the dynamics of the visualizations of social media platforms, creates internalizations of appearance expectations and social comparisons of self. Usage of social media created a cycle in which adolescents compare themselves socially with their peers which then created psychologically negative effects for adolescents which could include social media addiction, body image issues and eating disorders.

Fabris et al. (2020) argued that some adolescents potentially have “increased sensitivity to stress associated with experiences of neglect and negative reactions by online peers” (p. 1). Adolescents often become stressed or concerned when their posts receive zero attention as well as negative reactions. Fear of missing out (FoMO) is known to be associated with a decrease in

emotional well-being in adolescents and this research study by Fabris et al. examined the possible mediating factors between emotional symptoms and FoMO. Participants included a sample of 472 Italian adolescents aged 11–19 from five middle schools located in Northern Italy and self-reporting measures were used. The study had a particular focus to investigate how the possible mediating “role of perceived stress was associated with experiences of neglect and negative reactions by other social media users, and social media addiction” (p. 1). Results indicated that FoMO directly and indirectly predicted emotional symptoms and FoMO was associated with increased stress that was associated with experiences of negative reactions and neglect by online peers and as well as associated to social media addiction. FoMO is a factor in experiencing stress that was created by neglect by online peers, which triggered social media addiction resulting in a negative impact on emotional well-being of adolescents.

Yin et. al (2021) made connections in their study with results that included an analysis that found envy mediated the relation between social media addiction and FoMO. Yin et al. examined if envy would partially mediate the relation between social media addiction and FoMO accompanied by the moderating role of needing to belong. Associations between social media addiction and envy were examined to see if they would vary with the idea that participants who had higher levels of needing to belong were more likely to experience envy and social media addiction. Participants included 704 students from two senior high schools in Hebei province and Jiangsu province of China and the data was collected in March 2017. Results provided that social media addiction was connected to envy, which was then connected to FoMO, indicating that envy partially mediated the relationship between social media addiction and FoMO.

Social Media and the Fear of Missing Out

This section will review seven research studies and articles about adolescents, the fear of missing out (FoMO) and the underlying issues that are intertwined with FoMO. One of the literature reviews discussed the connection between adolescent social media use and FoMO, another discussed ties to FoMO and problematic use, another analyzed FoMO as a mediator with mental health and problematic use, two discussed social connectedness and the inherent desire to belong, one discussed the vulnerabilities tied to adolescent social media use and one discussed the link between envy and FoMO.

The first article in this section is a general study with ties to social media use by adolescents and FoMO.

Przybylski et al. (2013) provided an explanation of FoMO as defined by “a pervasive apprehension that others might be having rewarding experiences from which one is absent, FoMO is characterized by the desire to stay continually connected with what others are doing” (p. 1841). Research was presented with the aim of providing an empirically based and theoretically meaningful framing of the FoMO phenomenon. Methods for this purpose included three studies. In the first study, Przybylski et al. used data collection from an international sample of participants from a large and diverse perspective with a self-reporting method that provided the opportunity for participant respondents to assess their levels of FoMO as low, medium, or high. In the second study, Przybylski et al. (2013) used a nationally representative sample to empirically evaluate FoMO, with the intent to investigate demographic variability in FoMO and to research who in the general population tended towards FoMO, as well as evaluating FoMO as a mediating factor that would link “individual differences identified in past

motivation and social media research to behavioral engagement with social media” (p. 1842). In the third study, Przybylski et al. used a large, scaled sample focus to ponder how emotion and behavior are related to FoMO. Przybylski et al. acknowledged that results of their first study “identified ten items that form a new psychometric instrument to tap into individual differences in FoMO” (2013, p. 1846). Results of the second study demonstrated that young males from the nationally representative sample had tendencies towards higher levels of FoMO and that FoMO could be related with negative experiences and that there was a negative association with overall life satisfaction and general mood as well as results that fear of missing played a role in explaining social media engagement.

The second article in this section detailed FoMO with connections to adolescent and social media problematic use.

Song and Kim (2022) provided that the population in general, not just adolescents, have become inseparable from smartphones and smartphones have become an intricate part of our daily lives. This investigative cross-sectional and secondary descriptive study focused on types of smartphone use and FoMO by looking at intrapersonal factors of problematic smartphone use by adolescents. Participants were selected through convenience sampling from four public middle schools in four Korean cities and consideration was given for “gender, age, family structure, employment status of parents, subjective economic level, and health” (p. 3). Additionally, the study focused on these interpersonal factors of problematic smartphone use by adolescents with support from parents, teachers, and peers and “to devise a strategy to prevent problematic smartphone use” (p. 6). Findings showed students who used their smartphones for educational content compared to social media and gaming spent less time on their smartphones

and long hours of smartphone usage can eventually lead to lower academic achievements, which is why Song and Kim stated “counsellors, educators, and school healthcare managers should understand the purpose of smartphone use among adolescents and devise education and various strategies to help them properly enjoy such content” (p. 7). Lower levels of parental support equated more hours spent using smartphones while in turn, more parental support moderated the types of smartphone use and the amount of time spent using smartphones and FoMO created the most consistent type of problematic smartphone usage among middle school students.

The third article below analyzed if FoMO could be a mediator in the relationship between depression, anxiety, and problematic smartphone usage by adolescents.

Elhai et al. (2020) produced information from a research study that scanned the relationship between depression, anxiety, and problematic smartphone usage (PSU) to analyze if the FoMO could be a mediator in these connections. The study took place in 2018 and included 1034 participants of Chinese undergraduate students with an average age of 19.34 years. The participants were recruited through local online messaging boards and social networking site accounts by university psychology faculty. Five categories were used that included smartphone use frequency, PSU, depression, anxiety and FoMO. The research model used for this study noted that they expected to find that symptoms of depression and anxiety severity should theoretically predict FoMO and FoMO is theorized to predict smartphone use frequency and the severity of PSU, while smartphone use frequency predicts PSU severity. Psychological scales used for the study included Smartphone use frequency scale (SUF), Smartphone addiction scale-short version (SAS-SV), Depression anxiety stress scale-21 (DASS-21) and the FoMO scale and data analysis took place through R software, version 3.5.1, Mplus version 8. Results found

connections between FoMO and PSU severity, and that FoMO was related to higher use of smartphone frequency. Authors note that the result samples were like a recent Chinese sample regarding the relationship between FoMO and PSU severity, but a bit lower than samples from other countries. Additionally, Elhai et al., informs that while there were connections between FoMO mediating anxiety and PSU, there were not remarkable results that when depression was modeled as the predictor variable.

The next two articles in this section explored FoMO with the innate feeling of wanting to belong.

Roberts and David (2020) indicated that social media is an outlet in which the intrinsic human desire to belong can be met. They describe this longing as potentially a drive that can dictate human behavior. Social connectedness is a particularly important socio cognitive developmental stage for adolescents. Some research studies have specified connections that influence the driving forces behind adolescent needs or desires to spend the amount of time on social media that classifies their usage beyond problematic. Roberts and David stated that their study sought to use the Belongingness Hypothesis and Information Foraging Theory, to weigh the relationship between FoMO and well-being in two different studies. Method of data collection had participants invited into a lab where computers were used to complete an online questionnaire that used a five-point assessment scale range from strongly disagree to strongly agree. The first study had 107 participants, and this focused on the relationship between FoMO, social media intensity and social connection. The finding of the first study indicated that FoMO was an indirect positive motivator inducing social connections through intense social media usage, stating that FoMO created situations that promoted positivity by leading to enhanced

social connections for the participants in the study. The second study included 458 college student participants and these results found both negative (direct) and positive (indirect) FoMO impacts on subjective well-being through intense social media usage and social connections. Results of these studies suggested that FoMO can have a positive impact on well-being if acted upon by engaging in social media in ways that create the opportunity for social connection, concluding with that these findings and the ties between FoMO, social media use and social connections, highlighted the potential importance of how social media is used and the links to well-being.

Beyens et al. (2016) took aim and investigated the mediating role of FoMO in the association between adolescents' social need to belong, the need for popularity and Facebook use as well as "test an integrative model that examines (1) the mediating role of FoMO in the relationships between need to belong and need for popularity and adolescents' Facebook use and (2) the relationships between FoMO and adolescents' perceived stress related to the use of Facebook" (p. 2). Methods of the research included a cross-sectional paper-and-pencil survey study among 402 adolescents. The study developed what they labeled a perceived stress related to Facebook scale to measure the extent to which adolescents experience stress related to social media feedback from peers on Facebook. The need to belong was measured with a ten item Need to Belong Scale (NTBS), the need for popularity was measured with an 11-item popularity scale, a Facebook Intensity scale was used to ascertain Facebook usage and a FoMO scale was used to measure emotional and mental related fear of missing out. Sampling included examining the significance of the indirect effects through bootstrapping analysis. Results increased author understanding of how adolescents' social needs are related to their Facebook use and how strong

needs to belong and the need for popularity are associated with increased Facebook use were directly tied to the emergent relationship of FoMO, and that FoMO was positively related to increases stress related to Facebook usage.

The sixth article in this section examined the relationship between FoMO, vulnerability and adolescent social media use.

Buglass et al. (2017) looked at three connections between vulnerability, social media usage and the FoMO. The study sought to answer, “hypothesized cross-sectional and longitudinal effects associated with SNS (social network sites) use, FoMO, online vulnerability and psychological well-being” (p. 250). Methods included analyses of cross-sectional and longitudinal self-reporting data and the results demonstrate perceptions into predictors of online vulnerability behavior. It is important to note that online vulnerability is “defined as an individual's capacity to experience detriments to their psychological, reputational, or physical well-being as a result of the experiences that they may encounter whilst engaging in online activities.” Davidson and Martellozzo (2013, as cited in Buglass et al., 2017, p. 248). Buglass et al. results informed that problematic usage can put individuals in vulnerable situations and there is a potential that social media usage will have a negative effect on individual's psyche. Due to these circumstances, there are resulting behaviors that might cause subsequent vulnerabilities. Buglass et al. noted that frequent use of social network sites was linked to FoMO. Results showed a need for intervention, both offline and online and ideas presented in the study are creations of information sharing campaigns by alerting the public to the importance of the awareness of warning signs of problematic social media use, one of which is FoMO stimulated.

The last article in this section examined the relationship between FoMO and envy.

Wang et al. (2019) examined the relation of the human emotion of envy and investigated if envy would be positively related to adolescent problematic smartphone use and “whether FoMO would mediate the relationship between envy and problematic smartphone use, and whether student-student relationship would moderate the pathways between envy and problematic smartphone use” (p. 136). Participants included 724 Chinese adolescents from a convenience sampling method that recruited the adolescents from two middle schools in Hebei province, China. Methods included various scales; an 8-item envy scale, a 5-point Likert scale, a 10-point smartphone addiction scale, a FoMO scale, a student-student relationship scale and a single eight item my class scale. Findings indicated “that FoMO can be one explanatory factor for why envy is related to problematic smartphone use among adolescents” (p. 141). Participants that scored elevated levels on the envy scale were likely to have elevated levels of problematic smartphone use, worse student-student relationships, and elevated levels of FoMO indicating that envy was positively related to FoMO, which positively related to adolescent problematic smartphone use.

Social Media and Adolescent Cyberbullying

This section will review eight research studies and articles about adolescents and cyberbullying. One study examined adolescent cyberbullying and the connection between cyberbullying and how much time adolescents spend using social media, three studies looked at cyberbullying victimization, two studies researched cyberbullying prevention, two studies reviewed effects of cyberbullying on witnesses and one study explores cyberbullying and self-esteem.

The first article in this section examined adolescent social media use and cyberbullying with ties to the amount of time adolescents use social media.

Rice et al. (2015) examined cyberbullying experiences and behaviors among middle-school students from several aspects that included correlations between gender, race, sexual orientation, and technology use. Methods included probability samples of data collected from 1285 middle school students from a 2012 Youth Risk Behavior Survey in Los Angeles Unified School District. The study “used logistic regressions to assess the correlates of being a cyberbully perpetrator, victim, and perpetrator–victim” (p. 1). Results indicated that for the adolescents that were using the internet for 3 or more hours a day, that incidents of cyberbullying increased for both perpetrator and victim, regardless of gender, race, or gender identity, implying that the amount of time spent on the internet was the strongest predictor of cyberbully experiences.

These next three articles in this section examined cyberbullying and victims.

Craig et al. (2020) argued that social media use (SMU) has become an intrinsic part of adolescent life and that there are potential negative consequences regarding adolescent health in which adolescents could be exposed to online forms of aggression. The investigation in this study includes exploration of the relationships between SMU, cyberbullying, and victimization of adolescent social media users. Methods used by Craig et al. included data collection of adolescents between the ages of 11–15 years who previously participated in a 2017–2018 Health Behaviour in School-aged Children study, which had the purpose of describing engagement in three types of SMU themes and these themes were labeled as intense, problematic, and talking with strangers online. Participants included forty-seven countries and regions throughout Europe

and Canada in the 2017–2018 academic year and Craig et al. estimated relationships between SMU and cyber-bullying outcomes using Poisson regression. “Sampling procedures involved the selection of classes within schools with variations in sampling criteria suited to country-level circumstances. Some countries oversampled subpopulations (e.g., by geography and ethnicity), and standardized weights were created to ensure representativeness” (Craig et al., 2020, p. S101). Findings state that problematic SMU both for victimization and perpetration were steadily associated with cyber-bullying and that the frequency of reported victimization differed by country, gender, and age group. Intense social media use also differed by gender and age group including contact with strangers and problematic SMU was most prevalent and consistently related to cyber-victimization. It is suggested that SMU creates the opportunity for adolescents to be exposed to risks for involvement in cyber-bullying, particularly for boys who experience more aggressive online behaviors. When SMU is considered problematic or frequent, the time spent online replaces in-person social activities that promote socioemotional and moral development and opportunities to engage in constructive behavior. Social media technology and the introduction or intrusion into the daily lives of adolescents, according to Craig et al., has provided new and alternative social settings, disrupting the way adolescents have previously engaged in relationships. Craig et al. infers that social media platforms are intended to replicate the social media environments of the past replacing traditional face-to-face activities and due to rapidly evolving technology, these environments have changed the meaning, development, and process of social connectedness among adolescents. The ease of access to social media and intense or frequent usage of social media platforms have created pervasive uses leading to new

opportunities for cyber-bullying, online victimization and these present new challenges and opportunities for which health policies and practices are necessary to protect youth from harm.

Brewer and Kerslake (2015) explored the connections between victimization and perpetration of cyberbullying and the influence of self-esteem, empathy, and loneliness on adolescents. Participants included British adolescents aged 16–18 years and they completed a series of measures and questionnaires online. “The cyberbullying acts most frequently experienced by victims were being insulted in online forums, comments being made fun of in online forums, and private internet conversations being shared without their knowledge” (p. 258). Making fun of comments in online forums, sharing private internet conversations without the other’s knowledge, and insulting others in online forums were the acts most frequently reported by perpetrators. Cyberbullying victimization and perpetration incidents predicted loneliness, empathy, and self-esteem issues with self-esteem as the most significant individual predictor of cyberbullying victimization, while those most likely to engage in cyberbullying perpetration were adolescents with low self-esteem and lack of empathy.

Heiman et al. (2019) Presented an examination of coping patterns among victims of cyberbullying in middle school with 232 adolescent participants, “of whom 20.7% reported having been the victim of cyberbullying” (p. 28). Methods included procedures in which researchers entered classrooms, administered questionnaires, and conducted a single focus group in each school. Measures included collection of two types of data, both quantitative, and qualitative, via two focus groups from two questionnaires administered to the students. Results found that the most common emotional reactions to cyberbullying were anger, rage, and frustration while the reactions to cyberbullying were ignoring the cyber incident, informing a

friend, and counterattacking. Heiman et al. found that victims of cyberbullying reported lower use of problem-focused coping strategies for stressful situations in comparison to adolescents who were not cyber victims, when examining the types of coping strategies that were used. Victims reported greater use of emotionally focused coping strategies and avoidance-focused strategies, compared to adolescents who were not victims. “Cyberbullying the victims suffered verbal violence (threats or crude and offensive comments online) and insulting messages on social Internet sites such as Facebook” (p. 40). Other findings showed that some victims developed avoidance strategies as they chose to ignore cyber-attacks and this strategy was found to be effective.

The next two articles discussed psychological effects in relation to adolescents who have witnessed cyberbullying.

Song and Oh (2018) examined empirical, psychological, and situational effects that influenced behavioral reactions to adolescents who witnessed cyberbullying. Participants included 1058 middle and high school students from metropolitan areas and the experiences of 331 students who witnessed cyberbullying via a paper-based survey by organizational sampling. Anti-social behavior was measured with Peer Conformity Inventory (PCI), a four-point Likert scale, and a School bullying bystander survey (SBBS) that measured bystander “response while watching bullying situations in terms of personal and situational variables” (p. 276) and role of bystanders were measured with a Participant role scale (PRS). Findings indicated that “outsiders were the most dominant type of bystander witnessing cyberbullying with 60.7%, followed by defenders (30.5%), reinforcers (5.4%), and assistants (3.3%)” (p. 278). Bystanders that attempted to intervene in cyberbullying decreased when the number of bystanders grew, and blame can

partially be placed on the fear of becoming the next target. Psychological factors specified that bystanders with low moral disengagement and low anti-social conformity predicted bystander defending tendency. Bystanders that have relationships with bullies would rarely defend the victim in the absence of other bystanders and yet defending victims grew significantly as the number of bystanders increased. Most of the bystanders who witnessed cyberbullying were identified as outsiders, which showed that initiative-taking approaches to reducing cyberbullying through educational intervention designed to change outsiders to defenders are imperative to educate adolescents in the fight against cyberbullying.

Doumas and Midgett (2020) examined the impact of witnessing cyberbullying on bystanders. To understand the differences between bystanders and non-bystanders cyberbullying impacts, a school-based cross-sectional study was conducted among 130 middle school students from a public middle school in the Northwest region of the United States. “Questionnaire data were analyzed using multivariate analysis of co-variance (MANCOVA) with three outcome variables (depression, anxiety, somatic symptoms) and the between-subject factor bystander status (bystander, non-bystander)” (p. 957). A specific focus was given to the internalization of witnessing cyberbullying and to match the demographic composition of the school, stratified proportionate sampling was utilized. Findings indicated students who witnessed cyberbullying reported higher levels of depression, anxiety, and somatic symptoms than non-bystanders, which was paralleled to prior research. Unlike traditional bullying, cyberbullying is associated with internalizing symptoms over and above and extends beyond student targets to students that observed cyberbullying as bystanders including anxiety induced by not knowing how to intervene and feeling helpless to the experience.

The last two articles in this section explored cyberbullying and prevention/intervention.

Roberto et al. (2017) examined the short-term effects of the Arizona Attorney General's cybersafety promotion presentation on the prevention of cyberbullying. Participants included fifty-one parents of adolescents attending a middle school in the southwestern United States. Results specified that parents who viewed the presentation believed their children to be more prone to cyberbullying, and "indicated that they would be more likely to talk to their children about saving evidence, not retaliating, and telling an adult compared to parents who had not viewed the presentation" (p. 1). The framework of this study was composed of the extended parallel process model (EPPM) that includes four input variables of susceptibility, severity, response efficacy, and self-efficacy. Assessment and measure included a 5-point Likert scale via survey questions with adapted measures from Ajzen and Fishbein and/or Witte, Cameron, McKeon, and Berkowitz. Significant differences were found between parents in the control groups vs. experimental groups for all cyberbullying outcomes and notably, those parents that participated in the viewing of the presentation believed it was possible that their child could be cyberbullied in the future in comparison to the experimental group where parents specified they were more likely to talk to their child about saving evidence, not retaliating, and telling a trusted adult if they ever were to experience cyberbullying.

Damra and Omari (2022) evaluated "the short-term effects of the social networking safety promotion and cyberbullying prevention presentation of the Arizona attorney general's guided by the extended parallel process model (EPPM)" (p. 1042). Participants included 389 adolescents in seventh, eighth, and ninth grades at two public middle schools in Muscat city with procedures that randomly divided them into two groups. Scales used were the risk behavior

diagnostic scale, behavioral intention, and attitudes scale, coping strategies with cyberbullying scale, and self-protection behavior intentions. Findings infer that intervention regarding cyberbullying helped to change adolescent attitudes and behavioral intentions and promoted their security and safety when using social networks. Intervention provided significant effect on susceptibility, severity, self-efficacy, and self-efficacy responses and coping skills to deal with potential cyberbullying.

Social Media and Adolescent Education

The following six articles discussed the negative effects of social media use on academic performance. Several sub themes emerged in the literature. The first theme was the psychosocial effect of social media use by adolescents and the impact on school performance.

Van Den Eijnden et al. (2018) investigated the impact of disordered use of games and social media on the psychosocial well-being and school performances of adolescents with methods that included the Digital Youth Project of the University of Utrecht, a three-wave longitudinal sample of 12- to 15-year-old adolescents. Measurements explored three annual online surveys, which were administered in a classroom setting, including IGD, social media disorder, life satisfaction, and perceived social competence and to add the academic data, schools provided information on student grade point averages. Findings regarding academic performance provided that heavy use of gaming and social media usage created decreased school performance and academic success.

A second theme explored the connection between academic performance, school connectedness and social media.

Sampasa-Kanyinga et al. (2019) examined the possible connections between social media use, school connectedness, and academic performance among both middle and high school students and intended to evaluate whether age, gender, and school type (i.e., middle school vs. high school) played a part in moderating these relationships. The intense use of social media use creates a negative platform for school connectedness including academic performance among both middle and high school students. Sampasa-Kanyinga et al. believed that while social media created opportunities for connections, communication, and social interactions, it also became an intrusion that created a disconnect between actual face to face interactions and online interfacing. Methodology for this research study included data obtained from a survey taken in 2013 in Ontario, Canada. Students were asked how many hours a day they usually spend on social media websites. The survey used a two-stage stratified cluster sample design and the total sample in 2013 included 10,272 students from 198 schools. School connectedness was measured through a selection of three predetermined statements with corresponding ranged options from 1 to 4 in strongly agree or strongly disagree categories. Academic performance was also measured with self-reporting responses to a single question about what type of average grade marks students typically received. “Findings include that SMU was differentially associated with school connectedness and academic performance in middle and high school students” (Sampasa-Kanyinga et al., 2019, p. 200). Heavy SMU is associated with lower school connectedness, academic performance in adolescents and result specified that support should be considered for reducing time that students spend using social media, which should potentially improve school connectedness and produce positive academic performance. Additional steps should include providing prevention strategies with the intent to increase awareness and educate school health

professionals, teachers, parents, and adolescents about the potential risks associated with intense social media usage.

A third theme examined the connection between adolescent smart phone addiction in relation to social media and poor academic performance.

Domoff et. al (2020) measured adolescent addictive phone use in association with social media and academic performance. A sample of 641 adolescents found that addictive phone use patterns “had strong psychometric properties and associated with hours of social media use and media multitasking” (p. 33). Methods included using an APU scale screening tool that was developed to capture symptoms of smartphone addiction in combination with questions and responses using a Likert scale from 1 (never) to 5 (always). Additionally, APU (addictive patterns of use) associated with poorer academic performance, over and above hours of school day social media use and social media multitasking during homework” (p. 33). The findings from this sample indicated that adolescents that are dependent on their smartphones and social media are at risk for poor academic performance and concluded that similar findings have been reported the same issues, linking the addictive behavior of smartphone and social media use and negative impacts on adolescent academics.

A fourth theme examined connections between adolescent social media and the negative impact that resulted in poor academic performance.

Dey et al. (2022) explored adolescent social media use and the negative impact on adolescent academics. Data was gathered from a participant group of 500 adolescents completing questionnaires. Analyzation of the data included quota sampling techniques, crosstabulation and linear regression analysis using SPSS software. Samples included 261 students from private

schools and 239 students from public schools. Findings revealed that the negative impact of social media on adolescent academic performance was nearly the same for both private and public-school students. Additionally, results indicated that excessive use of social media was a clear predictor of poor academic performance and that this strictly applied to those adolescents that use social media excessively. This study went as far to say that the updating of Facebook status was directly related to having a negative impact on student GPA, and while recognizing that there might be some beneficial aspects to social media, (which the article does not specify what these benefits might be) the potential harm and negative aspects of social media use by adolescents far outweighs the possible benefits.

A fifth theme examined technostress as an effect on student academic performance in relation to student media multitasking.

Raza et al. (2020) completed a three-part study that included investigating the effect of technostress on student's academic performance, the cyberbullying role of victimization on the performance of students and the relationship between media multitasking and academic performance. Data was collected from 248 students from five different public sector schools in Islamabad, Pakistan at two different points of time. 550 students participated in this study and 372 completed a survey. From this data a sample was comprised of 104 male participants (41.9%) and 144 female participants (58.1%) between the ages of 9 and 15 years. Findings indicated that all independent variables “expressively forecast academic performance as measured by GPA. Technostress, cyberbullying, and media multitasking negatively projected student's academic performance” (p. 7). Other results indicated that the moderating effect of parental school support between the negative relationship of technostress and student

performance was significant, which suggested that even if students were using social media and were feeling stressed by these technologies, the effects could be avoided if they had an elevated level of parental school support. Additionally, the study expressed students who used technology for nonacademic purposes in the classroom or while studying had lower GPAs.

The final theme in this section explored the integration of social media use in the classroom.

Casey and Evans (2016) created an action research process during an investigation in which social media was introduced in a face-to-face classroom setting over an 18-month period in thirteen classes in Australian public high schools and students in the study were 13 to 16 years of age from middle socio-economic status. The focus of the study surrounded pedagogical and curriculum practices that integrated social media as part of academic discourse and a cycle in which this creation facilitated changes that required negotiation and reflection through documented classroom action research improvements. Data collection took place over three semesters from 2010 to 2011. The data was grouped into three categories that were organized into three main themes of the study, which were student, teacher, and learning. Students contributed by bringing prior knowledge and experiences into the classrooms. Teachers contributed by developing practices and approaches that supported social framework as well as meeting the curriculum and assessment requirements of the school and the learning category incorporated peer-to-peer interaction in which students were engaged and learning occurred within a wide range of interaction types. “Samples were then created for each topic within each class and compared and reflected upon as the research progressed. These, in turn, helped to inform the next cycle of action research” (p. 135). Findings showed that social media offered

innovative approaches for face-to-face classroom and that learning looked and felt different through the range of technologies that were embedded through social site network sites.

Home Social Media Environment

This section will review four research studies and articles about adolescent social media home environments. The first study discussed adolescent social media home environments in general, two of the studies examined home interventions for adolescent social media use and the final study explored social media and family functioning.

This study investigated how parental influence was associated with signs of problematic social media home environments.

Bleakley et al. (2016) investigated problematic internet behavior and its association with parental factors and the home media environment. They investigated which indicators of problematic internet use were reported and estimated how parental influence was associated with signs of problematic internet use. Considered were “parental monitoring, parental mediation of internet use, parent-teen relationship quality, and parent perception of their teen's time spent using computers” (p. 25). Participants were adolescents from the ages of 12-17 years from a weighted representative of the US population. Data was collected from an online survey in Spring of 2012 from an online survey of 629 of these adolescents. Problematic usage can create situations where adolescents experience online vulnerability. The internet and social media are major parts in the digital media lives of adolescents and there are concerns that adolescents misuse and overuse the internet and social media in manners that are potentially considered problematic. In a national sample of adolescents from the United States, this 2016 research study by Bleakley et al. has findings that there are common symptoms of problematic usage. Evidence

in the findings substantiates that problematic internet usage by adolescents is higher than their parent estimates, and the areas where parents and adolescents self-reported conflicting usage data were in the mornings before school and the afternoons after school. More parent involvement in adolescent media usage reduces the risk of problematic internet behavior and this was provided through adolescents who reported parental monitoring. This included the parent adolescent perceived relationship and how much adolescents were willing to disclose about their lives. A general lack of awareness on the part of parental involvement in understanding media usage by adolescents is a key factor in determining adolescent problematic media usage, and yet the study argued that it is unclear what underreported usage by parents specified. The relationship between the adolescent and the parent can reduce or increase problematic adolescent internet use, depending on parent awareness, monitoring, and involvement. This qualitative research cross-sectional survey has limitations as the data provided implies that there is not concrete evidence that connects a direct relationship between parent influence and adolescent internet use. Problematic internet usage in other research studies provided information about problematic internet use and links to psychological, academic, and interpersonal relationships and notes that understanding other conditions associated with problematic internet use and the potential outcomes and parent adolescent relationships are vital to protect adolescents from vulnerabilities that they are susceptible to in their adolescent stages of development.

These studies contemplated how parental intervention and prevention methods can effect social media home environments for adolescents.

Moreno et al. (2021) aimed to investigate and assess whether an intervention using the American Academy of Pediatrics family media use plan would lead to changes in media rule

engagement reported by adolescents. Participants included 1520 parent adolescent dyads with randomized clinical trials, parallel designs that used an online Qualtrics platform for recruitment, data collection, and intervention delivery. Adolescents from the ages of 12 to 17 years and their parents were recruited from April 8, 2019, to May 1, 2019, with follow-up surveys that were completed between June 11, 2019, and July 2, 2019. Criteria noted that recruitment required participants that both spoke and read in the English language who were then enrolled and randomized to either an intervention or control group. Results indicated that from the intervention group, there was no meaningful change in media rule engagement, even though family media use plans were created. Other evidence gathered from the intervention group included in a “full sample, as well as secondary group-based analyses, found that adolescents reported a lower perceived importance of their technology interactions” (p. 356). The American Academy of Pediatrics recommends that all families use a family media use plan to select and engage with media rules. To date, the effectiveness of this tool in promoting adolescent media rule engagement is unknown” (p. 351). Other findings state that if a family already had media plans and rules, after the study some rules may have increased while other rules decreased leading to an end with no overall change.

Mayo Clinic Staff (2022) provided a basic place to start when considering one of the most important facets of social media use by adolescents and this is protecting them from harm. This included monitoring use with reasonable time limits and explained why and how interference with normal activities like sleep and homework hold significant importance in mental and physical well-being. Adolescent accounts should be watched, and make sure that you are following through with the expectations that you set forth. Make sure to have discussions

about what is acceptable and what is not acceptable online behavior, discourage gossip, bullying and the potential to damage a person's image. This can be done through social media discussions by sharing parental social media accounts and leading by example and the encouragement of face-to-face social interaction.

The final study in this literature review explored the dynamics of family functioning, communication, and connectedness of family systems with adolescent social media uses.

Procentese et al. (2019) explored the role of parent perceptions about social media effects on family systems and how social media can impact family functioning with a focus on the relationship between family values and open communications with adolescents. 227 Italian parents with one or more teenage child of the ages between 13 and 19 were selected as participants through snowball sampling. Measures included a questionnaire with a section regarding socio-demographic data, the collective family efficacy scale, a 7-point Likert scale, a pool of 8 items that was used to detect participant perceptions about the openness of their family communications, and a pool of 9 items of both positive and negative impacts of social media on family systems, for assess participant perceptions. Findings specified that the impact of social media on family systems demonstrated that being confident in "family capabilities to handle daily tasks, stress, and challenges associated with a more positive perception about the impact social media can have on family system and the relationships within it" (p.7). Results imply that families with functional open communication systems can demonstrate social media usage for positive benefits including educational and participative spaces aimed at promoting more open communication between them and their children facilitating critical and responsible awareness surrounding social media use.

Action Plan

As we have seen from the literature review, social media and the potential effects on adolescents' overall well-being can have various effects on their development and their quality of life. From ideas explored in this literature review, we can gather five major points of interest that would be essential for teachers and staff to implement inside and outside the classroom to be more effective and realistic educators in secondary education from the lens of understanding the effects of social media on adolescents. The five points of interest are [1] Mental & Physical Well-being [2] Problematic Usage [3] Academics [4] Family Connections [5] Benefits.

The themes discovered in this research suggest that the well-being of adolescents, and the knowledge that families have regarding the effects of social media use by adolescents requires immediate attention and action. Recommendations from research will be compared to what my school does, and what possible potential changes can be engaged for improvement based on research exploration.

I currently work at middle school as an MLL Teacher, and my school has been described by one of the school counselors that has been employed there for over 20 years as the poorest middle school in western Washington. The significance of this information should show readers that many of my students come from exceedingly difficult home situations, have been victims of trauma, face homelessness, abuse, alcohol and drug addiction and a myriad of other potential situations that effect their quality of life and in turn, their school life. The school's minority student enrollment is 85% and 88% of all enrolled students are economically disadvantaged students. The school's diversity rate is high and serves a remarkably diverse population with 15% of the student body being white, 38% Hispanic, 16% Black, 15% multiracial, 11% Native

Hawaiian/Pacific Islander, 4.3% Asian, and 0.7% American Indian/Alaska Native with a total student body of 571 students. The demographics of my school over this past school year have driven the need for more administrative support in student relations and the district has approved an additional AP for the up-and-coming school year. My school will have a Principal, two Assistant Principals.

In the following sections, I break down the information into five tables. In these tables, you will find research results, my school's current curriculum (that closest fits the themes) per district requirements and potential recommendations for action, intervention, and change.

Mental Health

The district required advisory classroom instruction compared to the type of intervention our students need and its effectiveness with students of various backgrounds, does not fulfill the needs of our students. In research and guided PD's, teachers and buildings should have the autonomy to build the context for the instruction in our advisory classrooms that will allow for academic discourse and interventions based on the social media lives of the students. Current research into social media use on adolescent physical and mental well-being is varied and most research studies explored in the literature review indicated that more research is required to better understand social media use and the effects on adolescents. The goal of this section of the action plan is for teachers and staff to gain an understanding of the potential effects of social media use on adolescent mental and physical well-being. From here, teachers can begin to contextualize how social media can be manipulated into practice to facilitate academic discourse amongst students and their psychosocial media development. Below are my recommendations for teachers and staff looking to enhance advisory instruction and support positive attitudes and

knowledge gain for all students as well as school committees that could benefit from these ideas such as the family engagement committee.

Table 1

Mental & Physical Well-being

What research says:	What my school is doing:	What I recommend:
<p>The well-being of adolescent positive and negative emotional experiences related to aspects of social media usage can differ from adolescent to adolescent. Social media use has also been linked to positive psychological outcomes and social media experiences are now normal core components of adolescent development and part of the makeup of adolescent socioemotional and mental well-being. (Weinstein, 2018; Beyens et al., 2020; Roberts & David, 2020)</p>	<p>My school does not, from any perspective either negative or positive, address the issues of the effects of social media on adolescent well-being</p>	<p>The school could create a data collection process to start planning for interventions in support of a more positive ecology around social media use by adolescents.</p>
<p>Depression from social media use per research implies that at present, there is not compelling evidence to suggest that social media use meaningfully increases adolescents' risk of depressive symptoms but engaging with adolescents with depression about their SM use in the context of a therapeutic relationship is likely to encourage healthy use while avoiding some of the untoward consequences, and adolescents should be advised to limit the time of usage to minimize its harmful effects on mental health. (Kreski et al., 2020; Radovic et</p>	<p>My school addresses depression, but not from the lens of social media related depression</p>	<p>I would ask the school counselors about implementing social media use practices focusing on depression into late start Wednesday advisory classes.</p> <p>School counselors should be trained and educated on best practices to identify depression specifically related to social media use and be able to engage and support</p>

al., 2017; Dey et al., 2022)		students in healthy social media use.
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Problematic Usage

Problematic usage is one of the biggest issues of negative social media and internet use among adolescents. Topics include internet and social media addiction, FoMO, and cyberbullying, which carries implications for perpetrators, victims, and witnesses.

Table 2

Problematic Usage

What research says:	What my school is doing:	What I recommend:
Problematic usage of social media has similar characteristics to internet addiction including impulse control disorders via pathological usage. (Cha & Seo, 2018; Song & Kim, 2022)	My school does not address problematic social media usage other than to continuously have teachers remind students to put their phones away during class.	As with depression, School counselors should be trained and educated on best practices to identify problematic social media use and also look for telltale signs of addictive behaviors so that they are able to engage and support students in healthy social media use.
One specific type of problematic usage has been defined as FoMO (fear of missing out) and there should be a multifaceted approach to education programs that should be developed to help middle school students learn healthy social media usage patterns, which should include both offline and online interventions. (Cha & Seo, 2018; Song & Kim, 2022)	My school does not address problematic social media usage other than to continuously have teachers remind students to put their phones away during class.	Provide information campaigns to make users aware of the potential warning signs of problematic FoMO inspired SNS use and the ways in which engaging in online behaviors can render an individual vulnerable.

<p>Cyberbullying victimization and perpetration incidents predicted loneliness, empathy, and self-esteem issues with self-esteem as the most significant individual predictor of cyberbullying victimization, while those most likely to engage in cyberbullying perpetration were adolescents with low self-esteem and empathy. (Brewer & Kerlake, 2015; Craig et al., 2020; Rice et al., 2015)</p>	<p>My school uses a program called Second Steps to address bullying and students in my advisory class have expressed that they feel not enough has ever been done or will ever be done to solve the bullying issues, including cyberbullying.</p>	<p>I could ask the school counselors to reach out to the Second Steps program to see if they could evolve the program into including cyberbullying in their lessons.</p> <p>Students should be creating cyberbullying campaigns that could be approved at the building level and then by the district to have these campaigns on social media platforms, student voice needs to be taken seriously.</p> <p>Focus should be given to three main categories of learning about Cyberbullying, which would be the Cyberbully, the victim and the witness.</p> <p>Schoolwide reporting system should be posted in hallways, locker rooms, restrooms, classrooms, cafeteria, gym and at the start of every advisory lesson on late start Wednesday, the teacher should be reminding students of the reporting system and the anonymity provided.</p>
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Academics

Social media use, specifically problematic use, more than one hour per night and more than two hours on the weekends, can contribute to poor academic performance and create a negative platform for school connectedness. Poor academic performance can also lead to

decreased motivation, decreasing grades and a decrease in summative and state standardized testing.

Table 3

Academics

What research says:	What my school is doing:	What I recommend:
Academic performance in middle school can be affected by the intense use of social media, which creates a negative platform for school connectedness. (Sampasa-Kanyinga et al., 2019; Dey et al., 2022; Van Den Eijnden et al., 2018)	My school does not address problematic social media usage other than to continuously have teachers remind students to put their phones away during class.	Social Media negative impacts should be incorporated into classroom instruction and be taught as part of education and used in lessons, whenever applicable to support student classroom engagement
School connectedness significantly decreased and academic motivation decreased when students used social media for more than one hour nightly and 2 hours on the weekends. (Sampasa-Kanyinga et al., 2019; Dey et al., 2022; Van Den Eijnden et al., 2018)	My school does not address social media related academic performance aside from informing teachers that they are to remind students to put their phones away during class. They have not considered how to incorporate social media as a tool to use for lesson planning.	The school needs to have some sort of system that would incorporate teachers providing lessons about the negative effects of problematic social media use.

Family Connections

While family social media usage plans have not been discovered to make significant differences in usage, family support and education awareness can deter potential negative social media behavior. Negative behavior includes situations such as communicating with strangers, cyberbullying, gossiping and overall inappropriate and negative online social behavior. These

potential scenarios can be included in family social media plans and will increase the general lack of parental awareness discovered in research studies.

Table 4

Family Connections

What research says:	What my school is doing:	What I recommend:
<p>Research implies that families with functional open communication systems can demonstrate social media usage for positive benefits including educational and participative spaces. (Procentese et al., 2019; Bleakley et al., 2016; Moreno et al., 2021)</p>	<p>The family engagement employees and coordinators are focused on event promotions.</p>	<p>Request a meeting with the family engagement committee regarding social media awareness campaigns.</p> <p>Back to school nights should include awareness campaigns.</p>
<p>Promoting more open communication between parents and their children will facilitate critical and responsible awareness surrounding social media use. (Procentese et al., 2019; Bleakley et al., 2016; Moreno et al., 2021)</p>	<p>The family engagement employees and coordinators are focused on event promotions.</p>	<p>Individual family internet social media plans and student monitoring plans with examples and models should be provided.</p>
<p>One mistake the research says that parents make is underestimating the amount of time adolescents spend using social media. (Procentese et al., 2019; Bleakley et al., 2016; Moreno et al., 2021)</p>		<p>The family engagement committee should spearhead this project and be ready to supply materials and support.</p> <p>All families should create a family media use plan.</p>

Benefits

Social media platforms can be used as beneficial tools in promoting positivity and acceptance. Social media campaigns that promote open spaces for conversations on a myriad of topics including mental health and illness allow for the building of a social community in which adolescents can research, share, ask questions and receive support. Studies showed that adolescents are socially competent online (generally) and are often experimenting with their emergent sense of agency and utilizing social media for potential benefits can help to destress, provide connectivity and safe spaces for peer support.

Table 5

Benefits

What research says:	What my school is doing:	What I recommend:
Beneficial social media campaigns can create communities full of resources for adolescents providing a common place and foundation to share information and receive SEL (social emotional learning) support. (O'Reilly et al., 2018a; O'Reilly et al., 2018b; Wishart et al., 2022)	My school does not address beneficial social media campaigns, they do not have a building specific monitored Facebook page or any social media platform school page.	Social Media Usage should be incorporated into classroom instruction and be taught as part of an SEL course and SEL courses should be a required elective. I could ask school counselors to consider implementing social media use education into
Studies showed social media could be used to implement SEL practices that reduce stress, have value for social connectivity, were an important source of information about mental health, and provided a platform for peer-to-peer support, Twitter and	My school does not address beneficial social media campaigns, they do not have a building specific monitored Facebook page or any social media platform school page.	The school should consider having their own, district approved social media page where events, support, campaigns, sports announcements, etc. could be promoted, in lieu of the standard websites or emails that are currently used for communication.

Instagram provide suitable platforms to distribute mental health promotion messaging. (O'Reilly et al., 2018a; O'Reilly et al., 2018b; Wishart et al., 2022)		
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Summary

While researching and reviewing the current existing literature information concerning adolescents and social media use as I sought answer to my focal questions, I found the task to be challenging, because the idea of social media use and the effects on adolescents can be a very broad topic and it is a fairly new field of research. I discovered a demand and need for more research in this field through the voice of the authors of the several articles involved in this literature review. However, when implementing the actions as described in the above action plan tables, students will be given the opportunity to provide student voice, parents will become educated on the effects of social media use on adolescent overall well-being and educators will have the opportunity to bring social media into the classroom through the lens of SEL and also provide a platform that will engage students in academic discourse and student learning.

Discussion

While researching and considering what possibilities of potential benefits and risks currently exist due to the continual rise in social media use by adolescents, I was not surprised to learn that effects of social media use by adolescents have not been well studied. As the number of smart devices and social media platforms rises, so does the use of social media by adolescents and this paper has looked to provide an understanding by addressing the growing concerns of social media use by adolescents. In the following section I will review my findings based on the

focal questions of the literature review, then inspect each section and subsection from the literature review.

The literature that I have found is rooted in examining research studies focusing on categories of adolescent mental and physical well-being, problematic use of social media, academics, family connections and potential benefits of social media uses by adolescents. These categories will include subsections of depression, addiction, FoMO (the fear of missing out), and cyberbullying. I will first deliberate my findings based on the five focal questions of the literature review, then speculate on future trends in research, provide recommendations for teachers and schools, discuss recommendations for future research and then wrap up with limitations of this paper.

Discussion of Findings

The five focal questions of interest that were posed included [1] What are potential mental health issues of adolescent social media use? [2] What are potential benefits for adolescent social media usage? [3] What are problematic usages of social media by adolescents? [4] How does social media use affect adolescent education? [5] How are families affected by adolescent social media use? By examining the information within this paper and the research studies, I will address these focal questions in the following sections.

Mental Health

After unpacking and organizing the articles, I began to see the common patterns emerging that included potential mental and physical health issues of adolescent social media use. Almost all authors said we really do not have sufficient data. Typical was O'Reilly et al.'s (2018b) claim that informs readers "despite the exponential growth in adolescent use of social

media, there is surprisingly little empirical work investigating how these sites contribute to adolescent mental health” (p. 603). This was echoed by many researchers throughout the research for this paper, and numerous articles provided input with information implying that overuse of social media is the biggest factor that affects adolescents. In looking at the effects of overuse and the types of overuses, themes appeared that focused on specific effects on adolescent mental health including depression, FoMO (the fear of missing out), academics, cyberbullying, family connections and potential benefits of social media use.

In my initial ideas of this paper, I knew that I would be challenged to find literature that would specifically answer my focal questions due to a lack of research studies that could be comparable in focus, because early on I discovered that access to receiving data from social media platforms can be hard to achieve. I also knew there would be challenges in finding concrete results in this field of study due to these data retrieval constraints. However, these articles were a good place to start, which led to the focal questions building upon themselves to help paint the picture of the effects of social media use by adolescents.

There seems to be multiple mental health implications for adolescent use of social media. When adolescents are exposed to these popular ideals of appearance, there is the potential that some adolescents will experience appearance-based anxiety (Caner et al. 2022). The rapid development of internet technologies in recent years has made social media platforms an activity that can be accessed from anywhere and social media platforms have become an integral part of adolescents’ daily lives. The social anxiety adolescents experienced from exposure to popular ideals of appearance can create a cycle in which adolescents used social media excessively in comparing themselves (Weinstein, 2018) to others and social media influencers, and yet, the

excessive use of social media that we see everywhere today is considered the norm, despite the research.

There are correlations between appearance anxiety and social media addiction (Caner et al., 2022), which affected adolescent physical well-being, mental health and furthermore could lead to adolescent depression. During adolescence, many mental disorders are detected for the first time, and it is a significant period of psychological, biological, and social change for young people as they adjust, develop new skills, and start creating relationships that extend beyond the relationships that they have learned to develop at home (O'Reilly et al., 2018b). When adding social media into the mix, depression due to social media use could be exacerbated by adolescents that are predisposed to depressive disorders (Shah et al., 2019). This does not mean to imply that only adolescents predisposed to depressive disorders are depressively affected by social media use as numerous studies have documented links between heavy social media use and reduced adolescent well-being, which include, dissatisfaction with life, depression, anxiety, attention problems, stress and internalizing negative experiences (Choukas-Bradley et al., 2022). Many of these experiences that address overall mental and physical well-being, including depression, have social media studies that consider problematic usage to be a key factor, and this opens the door to the next focal question: What are problematic usages of internet/social media by adolescents?

Problematic Usage

What are problematic usages of internet/social media by adolescents? Two of the biggest issues in problematic use of internet and social media by adolescents, include the FoMO (the fear of missing out) phenomenon, and cyberbullying. These addictive behaviors share similar

characteristics with internet addiction, which includes impulse control disorders via pathological usage (Cha & Seo, 2018).

Cyberbullying. Yet there is another focus of problematic use that the literature has suggested leaves a negative impact on adolescent mental, physical and socioemotional well-being, and that is the topic of cyberbullying. As the use of social media has increased significantly by adolescents, it is a simple connection to make that cyberbullying has also increased. Social media and the multiple platforms that adolescents use provide a wider audience, which creates a wider impact and enhances its negative effects. While the perpetrators can be provided with anonymity, it is the opposite for the victim, and this makes it easier to be both a cyberbully and a victim (Nixon, 2014). Cyberbullying has associated terms that have evolved and encompass internet harassment, online harassment, and online bullying. Cyberbullying for victims can create the same symptoms as appearance anxiety as victims of cyberbullying predictably have lower self-esteem, negative cognitive schemas, negative body image and negative identity development that result in depression (Senekal et al., 2022). Experiencing cyberbullying is also associated with psychological distress, including distresses that can lead to suicidal ideation when combined with depression, loneliness, low self-esteem, and dissatisfaction of life (O'Reilly et al., 2018b). These combined negative psychological effects can be a direct consequence of victimization from cyberbullying. Witnesses to cyberbullying who did nothing to stop the cyberbullying can suffer the same psychological distress as those that have experienced cybervictimization and that often cyberbullies themselves share the same psychological stressors as their victims and witnesses (Brewer & Kerslake, 2015). Because cyberbullying can have such detrimental effects to cyberbully perpetration,

cybervictimization and witnessing cyberbullying, intervention and prevention methods are important to debate as well as intervention and prevention methods for the multiple negative effects of problematic social media usage by adolescents as researched in this paper.

Fear of Missing Out. FoMO creates a longing that is intrinsic in the human nature need and desire to belong (Roberts & David, 2020), which dictates much of human behavior. FoMO can be a vicious cycle in which an imagined sense of social connection exclusions creates feelings of ostracization and loneliness, impacting the quality and quantity of life. FoMO can also induce an intense desire to create scenarios of information gathering to compare oneself to others in search of a sense of social media personal status (Roberts & David, 2020). Adolescents that demonstrate elevated levels of FoMO may be remarkably sensitive to concern when they have experienced negative or no reactions by peers to their social media posts. They base their worth and popularity on the number of received likes, comments, and followers to measure the degree of their acceptance and competence to receive feedback in their immediate social networks (Wang et al., 2019). For these adolescents who showed elevated levels of FoMO, being excluded or ignored online or receiving negative comments can be extremely detrimental to their emotional well-being. One study has suggested that the effects of the removal of access to social media has shown evidence of physiological distress in the form of heightened heart rate and blood pressure (Roberts & David, 2020). With the continual distraction that FoMO promotes, this type of problematic social media use can also lead to impacting academics and poses the next focal question. What are the potential academic effects of adolescent social media use?

Academics

What are the potential academic effects of adolescent social media use by adolescents? School connectedness is an important stage in the development of social interaction for adolescents. Excessive social media use interferes with school connections as it impedes face to face interaction development. Poor relations with teachers, peers and family relationships were related to risk factors for problematic internet use, implying that academics are also affected. Problematic social media use has been found to take time and effort away from activities such as studying, reading, test preparation, and completing homework, thereby having a negative impact on academic performance for both schoolwork and standardized testing. Heavy use of social media, the addictive nature as explored in problematic use, and the associated negative effects are detrimental to academic performance and social relationships. These findings suggest an opportunity for primary prevention and intervention efforts against negative school outcomes in consideration of looking at using academics and education to inform adolescents about good practices in social media use. Another explanation of the association between problematic social media use and negative academic outcomes could be related to students that fall asleep during class affecting academic performance due to heavy and late-night use of social media, which could also physiologically shift circadian rhythms disrupting normal and healthy sleep patterns (Sampasa-Kanyinga et al., 2019). Social media has dramatically changed adolescents' learning and daily experience and thus led to tremendous challenges and opportunities in adolescents' health and education and existing studies have demonstrates a negative influence of social media on adolescents' academic performance.

Family Connections

What are potential steps families can take regarding effects of adolescent social media usage? Prevention strategies intended to educate and increase awareness among school health professionals, teachers and parents should be implemented. In my school, I do not see any education or campaigns that address or promote positive social media use or potential pitfalls and interventions when social media usage is found to be affecting home life, academic performance, and socioemotional development. One mistake that parents make is underestimating the amount of time adolescents spend using social media (Bleakley et al., 2016). This implies that parents could use help in understanding the role that social media plays in adolescent development and a suitable place to start in prevention of problematic social media is creating parental controls. Jargon (2022) has shown insight in how utilizing platform-level controls via Apple Family Sharing for iPhones, Google Family Link for Android and Chromebooks will allow parents and guardians to set time limits and controls on which apps adolescents are able to download. While these controls are starting points, there are other aspects that need to be considered, including knowing what platforms adolescents are using and creating parameters that protect the child such as not lying about their age during account setup and not allowing adolescents to create their own account setups. Ongoing conversations about safety, appropriate online behavior, and learning the settings of the individual platforms are important in protecting the child. Parents and families should also be aware that some of these platforms do not allow the blocking of specific content, which can be important to monitor during adolescent development as well as the creation of family media usage plans that can be curtailed to individual family needs and wants and there are examples of these types of plans that can be found for free by simply using a Google search.

When considering the factors of problematic usage of depression, academic performance and cyberbullying, the literature suggests that family connectedness can create environments and opportunities for prevention and intervention when necessary. Furthermore, parents and teachers should find it necessary to take action to educate adolescents and reduce their dependence on social media use as well as help them to recognize that overuse of social media can have negative effects on their mental health (Jargon, 2022). With all the previous focus on mental and physical wellbeing, depression, problematic usage, academic performance and cyberbullying, and the need to address family connections through prevention and intervention processes, there are sections in these literature reviews that highlight potential benefits for adolescent internet and social media use. What are potential benefits for adolescent internet and social media usage?

Benefits

What are potential benefits for adolescent internet and social media usage? Using social media is not inherently beneficial or harmful to young people and adolescents' experiences online are affected by how they shape their individual experiences (Weinstein, 2018). Social media use can provide an outlet for loneliness, help with mood modification, support groups, information, and positive advocacy-based content (Cha & Seo, 2018). Using social media also provided the ability to maintain existing friendships and had a positive effect on the quality of those relationships. Perceived social support can mediate the negative impact of social media on adolescent wellbeing and friend support offers a sense of protection against developing all the depressive symptoms previously mentioned and low life satisfaction after being victimized via social media platforms (Senekal et al., 2022). This engagement with peers online has been linked to a higher level of mental well-being. When adolescents can ask for and receive peer support via

online and social media platforms, they are building and developing communities of strength and support as they navigate and develop social skills and relationships. Peer to peer platforms of support can offer opportunities to build communities and relationships and some provide opportunities of anonymity for adolescents that might be embarrassed to seek help because they are shy or do not want to be judged (Antheunis et al., 2016). Adolescents also consider friends that they have never met face to face in a category described as good friends, as they are able to actively engage and maintain online social relationships despite geographical differences, thereby expanding their social network relationships and having support networks that generations past did not have the opportunity to experience (Senekal et al., 2022). When considering adolescent voice, I have learned that they use social media to distract themselves from everyday pressures including escaping the stressors of schoolwork and exams. Adolescents state that they use social media to relax or escape and to find avenues that promote their positive mental health and help them manage stress and anxiety. These actions demonstrate the ability to make decisions that help adolescents to recognize and manage stress by using social media in a positive way to better their well-being. Through these actions, adolescents can become informed about health-management, and they are able to exercise some autonomy and control in their own lives and build positive decision-making skills in self-advocacy (O'Reilly et al., 2022). However, social media awareness campaigns directed at educating adolescents and their families, guardians and schools should be considered. There are plenty of examples of the pitfalls that social media can create and should not be ignored as the use of social media by adolescents continues to rise.

Speculation On Future Trends In Research

With the release of the public health advisory report by the U.S. Office of the Surgeon General (2023), *Social Media and Youth Mental Health*, I expect to see research that will be focused on collaboration between researchers and community partners as they find a way to make research findings publicly informative and accessible based on the summary that there needs to be a laborious evaluation of social media's impact on adolescent mental health and well-being through longitudinal and experimental studies which will also include research on specific outcomes and clinical diagnoses among specific populations.

Other research will include longitudinal and experimental studies and how Social Media Big Data (SMBD) will be used. Wang et al. (2020) describes how "social Media Big Data (SMBD) is widely used to serve the economic and social development of human beings. However, as a young research and practice field, the understanding of SMBD in academia is not enough and needs to be supplemented" (p. 1). This type of research will also include research on specific outcomes and clinical diagnoses among specific populations.

Finally, we will see the integration of AI (artificial intelligence) with social media. When speculating on research of the integration of AI with social media, one practical example that I can provide is that on the Snapchat platform, users have an AI friend that they can communicate with, creating a virtual reality relationship. This AI friend was randomly assigned to my account on 4/22/23. I would not have known it was there had someone else not posted on Facebook about this happening to their account. I just evaluated this relationship by saying hello to my AI and then I asked how they felt about my research question for speculation on social media research trends and received this response:

Figure 1*AI Communication*

The response was instantaneous, and the AI connected a trend between augmented reality and virtual reality which prompted me to speculate that we can expect to see future research trends regarding human relationships with augmented and virtual reality relationships via social media platforms. Will AI integrated with social media platforms mitigate or inflate the effects of social media use by adolescents? What if the AI interface in the Snapchat app is constantly evolving and getting to know us individually? For example, when we search for something on the internet, all of the sudden we are now seeing advertisements for the item we searched for in our feed. What if an AI app began supporting us in ways that we as society have failed to do for one

another? Consider the idea of an app so revolutionary that the self-learning AI machine prioritized Indigenous practices of community care and mutual aid by incentivizing acts of service and mobilizing individuals to perform those acts (Harris, 2023). What if this app was designed to do all of this through a “social justice lens using ethical methods and provided a place where people can go and get equitable care, where we can be seen and heard and never be alone” (Harris 2023). How would these speculations affect our adolescents? Would this create a society in which our youth from the moment they started to engage with social media with artificial intelligence would receive SEL (social emotional learning) support, and essentially provide them with mental and civic health support, guiding them their entire lives? With the advancements in technology in the last century, we might see some of these questions answered in the next twenty years. However, this could only happen if parents and students were to organize to put pressure on the big tech corporations that own the AI algorithms.

Recommendations For Teachers & Schools

In my action plan, I listed several initiative-taking steps that schools could implement including creating social media campaigns that would involve student voice in collaboration with teachers, administration, and special committees. Specifically, I would recommend social media campaigns that would include educating adolescents, their families and our communities on the topics and themes addressed in this paper; cyberbullying, body image, problematic usage, addictive behaviors, FoMO (fear of missing out), poor academic performance, depression, well-being, and home media environments. These would all need to be addressed with a strong emphasis on awareness, prevention and intervention. Parents need to organize and push back on social media platforms and big tech companies for methods to provide better safety protocols to

protect adolescents including higher standards of privacy protection for our youth as well as be responsible for educating their adolescents about appropriate and safe digital citizenship. This would be a firm grounding for improving social media awareness. Until schools start addressing social media use, the limitations in spreading knowledge that is available to share could cast a shadow over benefits that can be accessed when students, teachers and families are pointed in the right direction. Pearson et al. (2023) warns that we need safety protocols like we do for other product safety issues in which we use enforcement that parents can rely on.

Recommendations For Future Research

The information from the literature review of multiple works has demonstrated and generated a need for more studies on the effects of social media usage by adolescents. The U.S. Office of the Surgeon General's (2023) advisory report, *Social Media and Youth Mental Health*, included eight recommendations for future research and three of the recommendations echoes my endorsements for future research. These critical recommendations include researchers should "establish the impact of social media on youth mental health as a research priority and develop a shared research agenda, and create a rigorous evaluation of social media's impact on youth mental health and well-being" (p. 19) Other critical recommendations for researchers include "evaluating best practices for healthy social media use in collaboration with experts involving healthcare providers, parents, and youth" (p. 19). One of the biggest issues that researchers face is the fact that social media platforms closely guard the privacy of their user data, even when consent has been granted. According to Leightley et al. (2023), the privacy laws that social media platforms guarantee for their members have found that "researchers encounter increasingly negative scenarios when they attempt to access social media data" (p. 2), even with

direct consent from ethically approved studies. The U.S. Office of the Surgeon General (2023) has advised that “our children have become unknowing participants in a decades-long experiment. It is critical that independent researchers and technology companies work together to rapidly advance our understanding of the impact of social media on children and adolescents” (p. 11). Ultimately, these recommendations will require technology companies to work together with researchers to bridge the gap in access to the data required to help the public understand the complete impact of social media on adolescent mental health and well-being and create best practices, effective interventions and informative policies.

Limitations of the Project

When searching for articles for this project, my first goal was to find the most recent data available to educate myself on trends and supply the best possible advice in my action plan. I have used a program called Endnote for organizing my research and I have 186 articles in my digital library of which I have used 54. Some of the research projects that did not make the cut were too narrow in scope for the purpose of this paper, for example studies that provided specific outcomes based on racial, ethnic, and sexual and gender minorities were eliminated. Articles that were older than 2013 were eliminated and of the 54 articles included, the years span from 2013 to 2023. I eliminated specific groups and categories because I wanted to focus on these issues from the lens of the population as a whole and that is why I eliminated categories of specific clinical diagnosis such as sleep quality, attention, and body image, as well as the categories related to racial, ethnic, and sexual and gender minorities. Search terms I used were adolescents and social media, the effects of social media on adolescent, problematic use of social media by

adolescents, benefits of social media use for adolescents, monitoring social media use by adolescents, effects of social media on academic performance, and adolescent cyberbullying.

Conclusion

The U.S. Office of the Surgeon General's (2023) advisory report, *Social Media and Youth Mental Health*, echoed my intuition and the concerns of the researchers. There is an urgent need for more research on the effects of social media use by our adolescents that requires immediate awareness and action to face the significant challenges brought on by adolescent social media use. This challenge includes exploring the effects of social media on adolescent well-being, mental health, what parents, caregivers, researchers, and young people can do and seeks to find the full scope and scale of the impact of social media use by our youth, especially considering that our adolescents have easy access to extremely harmful, and inappropriate content. We are in a national crisis, and I would speculate our crisis can be echoed throughout the world and we must protect our youth by providing the necessary tools to navigate their ever-changing digital environments. In this literature review I have tried to capture the general sense of adolescents and effects of social media in terms of their well-being.

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