INVITED ARTICLE

Examining the Negative Impacts of Social Media on Adolescents: A Literature Review

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Abstract

This article examines the negative effects social media has on adolescents' health and well-being, and how it impacts their academic life. Research was conducted by using scholarly search engines to locate several articles that examined the effects of social media use on adolescents within the last ten years. After reviewing the articles, five main themes emerged: social media's impact on (1) social-emotional health, (2) mental health, (3) physical health, (4) academic performance, and (5) the effect of social media use during the COVID-19 pandemic. The findings from the literature review show the adverse effects of social media on adolescent social-emotional, mental, and physical health, and student academic performance. This review of the literature concludes by observing that adolescents are struggling with problematic social media use and need to learn responsible self-regulation tools and strategies. Future research should consider how to effectively protect and limit students from having to experience these adverse effects, while promoting a healthy and responsible balance of life online and in-person.

Social media has become a prevalent and vital aspect of our daily lives. Statistics Canada (2021) reported that 9 out of 10 Canadians aged 15 to 34 used social media regularly to share and create material, display online profiles, and communicate with others. Although social media has proven to be an effective learning and communicative tool (Talaue et al., 2018), most social media use has had a negative impact on the overall health and well-being of adolescents (Abi-Jaoude et al., 2020; Gupta et al., 2022; O'Reilly et al., 2018; Pellegrino et al., 2022). In support of that argument, this article's authors reviewed a range of research in the last ten years regarding social media use, and they found a correlation between problematic use and negative social-emotional, mental, and physical health effects impacting student learning and achievement. From those findings, the authors identified and investigated five key areas: social-emotional health, mental health, physical health, academic performance, and the rise in social media use during COVID and its increasing negative impact on all of these areas. This review of the literature is organized thematically into sections, providing evidence and analysis for each of the five key areas. Each section provides suggestions and strategies to address the concerns and issues identified. The article concludes with a summary of the overall findings.

Impact on Adolescent Social-Emotional Health and Well-being

One way social media is impacting adolescent social-emotional health and well-being is by creating pressure for adolescents to have a constant online presence. According to Popat and Tarrant (2023), adolescents describe online interactions as a vital role in their daily lives and there is a sense of pressure to stay connected and engaged online despite the difficulty of meeting these unrealistic expectations. This pressure to stay connected online can cause an individual to feel social-emotional distress. Students believe they are at risk of social exclusion from their peers if they are not up to date with social media news and information. As adolescents struggle to cope with the pressure, they experience negative impacts on their face-to-face interactions and overall social-emotional well-being (O'Reilly et al., 2018).

Adolescents who spend more time on social media have an increased likelihood of experiencing a fear of missing out (FOMO), which can lead to additional social-emotional distress. When people view edited posts, they compare their own accomplishments, appearance, and aptitudes to the false realities of others (Gupta et al., 2022). Social media platforms have made it easy for people to use editing filters, which can cause confusion for the viewer as to what is real or fake. When there is a discrepancy between one's own experiences and the perceived positive experiences of others, adolescents start to internalize their feelings of FOMO. When FOMO occurs, self-esteem decreases and the feelings of depression and anxiety become heightened (Barry et al., 2017). Adolescents have a strong desire to feel included and accepted, which can create feelings of anxiety, believing they should also be having similar positive experiences. Adolescents are experiencing FOMO through self-comparisons of others' posts and not receiving positive feedback on their own posts. This increases their state of depression or anxiety, leaving a lasting impact on adolescent social-emotional health.

Additionally, social media platforms place adolescents in situations that make them vulnerable to peer rejection in an unsupervised domain. Adolescents desire the rewards provided by social media, such as making new friends and receiving affirmation for their posts and online content (Boer et al., 2021). The interactive nature of these platforms allows adolescents to comment on or "like" each other's posts, which can lead to critique and criticism of an individual's appearance, thoughts, and beliefs. When students receive insufficient validation from their peers, they tend to experience stress or lowered self-confidence (Hawes et al., 2020; Lee et al., 2020). Adolescents who experience rejection online are not only hurt by the individual making the comment, but by all others who witness and engage in the post. Spending more time online increases not only peer interactions, but also the opportunities for adolescents to experience exclusion by their peers.

Another form of rejection impacting student social-emotional health online is cyberbullying. Exposure to cyberbullying on social media directly impacts victims' and bystanders' emotional health, often triggering emotional distress and other detrimental effects. According to Whittaker and Kowalski's (2014) study, 22% of participants had been a victim of cyberbullying and over half of the participants had been a witness to cyberbullying. Young people have the right to be safe, even in the virtual world. Cyberbullying is a prevalent problem and additional safety precautions are required. Exposure to cyberbullying is known to have a corresponding link to emotional and psychological distress such as, anxiety, suicidal ideation, self-esteem, lack of control, social exclusion, threats to belonging, loneliness and isolation (Popat & Tarrant, 2023; Sampasa-Kanyinga & Hamilton, 2015). These intense emotional encounters caused by cyberbullying can have a lasting impression on one's emotional well-being.

Social media provides unlimited access and exposure to harmful content that is often intriguing to adolescents, encouraging risky behaviours. Young people's exposure to content that depicts dangerous behaviour, such as drinking or drugs in a glorified way, increases their interest in exploring those behaviours (Gupta et al., 2022). Adolescents are naturally curious and when they view Tik Tok or Instagram videos that show peers taking part in activities that are not safe, they often want to replicate the video without considering the risks involved. The attention they receive appears to have a greater influence on their decision to participate rather than the risks and consequences, even if it could lead to physical injury, overdose, or death.

Participating in risky behaviours not only impacts adolescent social-emotional health, but it also creates many mental health challenges. Recognizing the impact of social media on adolescents is important for teachers to understand as students are bringing their developing emotional selves to school every day. Teachers are witness to how adolescents present themselves in class without knowledge of the underlying emotional factors that hinder their learning. It is important for teachers to identify these behaviours and strive to understand the emotional distress in adolescents. School divisions should provide professional development for

staff to help them identify when young people are in crisis (Odgers et al., 2020), and engage and inform parents about cyberbullying and other online safety concerns (Fredrick et al., 2022).

Impact on Adolescent Mental Health and Well-being

In addition to social-emotional concerns, excessive social media use can lead to serious mental health challenges such as addictions. Bhargava and Velasquez (2020) found that internet addiction is a significant public health issue, and social media companies often structure their platforms in a manner that fosters addictions by prioritizing engagement over the wellbeing of their users. Adolescents have become accustomed to scrolling through posts, images, and videos, which leads to decreased attention and focus on the physical or real world around them. Once adolescents feel dissociated from reality, their stress and anxiety levels go up and concentration levels go down. According to Keles et al. (2023), an addiction to social media can cause distractions, which can adversely affect student productivity and learning. The cause of the addiction needs to be addressed in order to ensure that academic learning can occur. Mental health challenges associated with problematic use indicate the need for further education around self-regulation and responsible use. McNaughton et al. (2022) emphasized the role of parents in supporting their child's self-regulation and digital skills at home. When parents are actively engaged in their child's life, including social media use, it can help to ensure the child is having a safe and more positive online experience. The role of parents is important because they act as a guide in helping the children to develop their own self-regulation skills and learn how to critically process and navigate their way through controversial and negative online content.

Furthermore, excessive social media use can increase exposure to body image comparisons that lead to other mental health issues such as eating disorders. Adolescents are often exposed to online content associated with body image idealization and disordered eating patterns (Choukas-Bradley et al., 2023). When adolescents are frequently exposed to unrealistic body images, they tend to engage in body comparisons that lead to lower feelings of self-worth and self-esteem. The desire to reach certain appearance standards could also lead to unhealthy eating behaviours, or even self-harm or suicidal ideation.

Self-harm and suicidal ideation are two major mental health concerns associated with problematic social media use. As explained by Gupta et al. (2022), when adolescents are exposed to social media content depicting dangerous behaviour such as self-harm and suicide, the probability of participating in such behaviour may increase. Most adolescents' social media use is not monitored by adults; therefore, disturbing online content that encourages self-harm and suicidal ideation is easily accessible. This content often attempts to normalize self-harm and suicide, potentially leading adolescents to replicate the actions that they are exposed to (Srivastava et al., 2019). There is an urgent need for continued education and preventative measures to be put in place to reduce the risks and protect adolescent mental health. Without these safety measures, not only will their mental health be impacted, but also their physical health.

Impact on Adolescent Physical Health and Well-being

Problematic social media use is having a significant impact on adolescent physical health and well-being. According to Pellegrino et al. (2022), people who use social media in a problematic manner are more likely to be associated with unhealthy lifestyle practices, such as lack of exercise or trouble managing daily tasks. Although it is important for students to manage daily tasks and exercise regularly, social media has become an additional barrier adolescents must overcome. Adolescents need to manage their daily exercise and academic responsibilities in order to be effective students and maintain a physically healthy lifestyle. Lack of exercise and

inability to manage daily tasks is causing physical pain and discomfort in adolescents' bodies (Nilsen et al., 2023).

In addition, the problematic social media use that is limiting adolescents' physical activity is resulting in physical ailments. Nilsen et al. (2023) found that physical complaints such as headaches, eye pain, back pain, nausea and abnormal heart rates are linked to exposure with higher screen time and social media use. There is thus a direct correlation between time spent on social media and its impact on one's physical health and well-being. Although social media may have the power to motivate and improve physical health, more often than not the research shows it has a negative effect.

Problematic use of social media also has a significant impact on adolescent students' physical and social interactions with their peers. Adorjan and Ricciardelli (2021) documented evidence from teenagers describing scenarios wherein friends are solely on their own devices during their time together. With this behaviour becoming widely common and seemingly accepted, there is a risk that this type of social interaction is replacing what was once an opportunity for friends to get together to play a game or enjoy a more movement-based outdoor activity. Problematic social media use will continue to compromise young people's physical activity levels and peer interactions unless adolescents can learn to be more responsible with their social media use and find a blended model of social engagement.

As constant online communication with peers becomes more acceptable, this problematic pattern is also impacting their physical health at night. Unrestricted social media use at night is disrupting students' sleep cycles and causing sleep deprivation, which affects their physical health and ability to function at school. Paiva et al. (2015) found a link between sleep deficiency and headaches, fatigue, body pains, and emotional irregularity. This connection shows the importance of sleep and how it may affect students' physical bodies, emotional regulation, memory, and cognitive function. Students need consistent sleep for their minds and bodies to work to the best of their ability. Scanning through apps and artificial lights on devices cause an increase in cognitive arousal that can make it hard to fall asleep, often leading to shorter sleep durations (Popat & Tarrant, 2023; Sampasa-Kanyinga et al., 2017). With this awareness, students must consider taking a proactive approach to protect sleep routines by motivating each other to disengage with technology prior to and during designated sleep periods. The following examples are ways to regulate nighttime use of social media: purposefully have your phone on night settings where you will not receive notifications, refrain from using the phone once you have started your bedtime routine, and strategically placing your phone in a location away from your bedside. Because quality of sleep impacts one's physical health and academic performance, responsible practices must be established to support adequate sleep and limit nighttime social media use.

Impact on Student Academic Performance

The amount of time spent on social media platforms can distract adolescents from concentrating on their studies and interfere with their ability to manage their time, impacting their academic performance. Students' inability to manage time impacts learning because it disrupts their cognitive processes. As discussed by Talaue et al. (2018), lack of time management skills can determine the success or failure of an individual student's academic success. Students with poor time management skills spend insufficient time on their studies and miss deadlines. They also engage in procrastination, which can increase their stress levels. In order to achieve academic success, students need to complete assignments and meet respected deadlines.

Social media use not only negatively influences students' time management skills, but it can also contribute to impaired memory, concentration, and focus. Talaue et al. (2018) found that when students are on their devices, they do not have the capacity to retain information. When students are on their phones, they are unable to properly process the teacher's instructions and are often more interested in communicating with friends, playing games.

scrolling through pictures, and watching videos. This off-task behaviour is making teaching and learning difficult, because multitasking is an ineffective way to take in relevant information. Problematic social media use is impacting student time management skills and cognitive abilities. It is important for schools, parents, teachers, and students to find solutions that address these concerns through policies on social media use in schools (Muls et al., 2020), developing self-regulation skills (McNaughton et al., 2022), and providing education on appropriate in-person cell phone etiquette (Azad, 2013). These interventions will promote positive digital citizenship and educate students about maintaining a responsible digital footprint.

Impact on Adolescent Health During COVID-19

In order to prevent further spread of the COVID-19 virus, the government shifted all personal and work-related communications online. This shift significantly increased students' social media use, which triggered social-emotional, mental, and physical health concerns. During this time, device usage skyrocketed because students were instructed to attend school online, to stay home, and to socially communicate behind a screen (Shutzman & Gershey, 2022). The increase in device usage was inevitable as it became the primary way for students to communicate with peers and to participate in school academics and activities. In this process, some lost the benefits of an active and social lifestyle that included interpersonal relations, physical movements and exercise, and engagement with their bodies and minds in a classroom setting. The lack of face-to-face connection continues to have lasting negative effects. Hill et al. (2016) concluded that school aged children should spend no more than two hours a day on social media, in order to prevent the possible risk of reality impairment and inaccurate self-judgement. Although students are no longer forced to communicate digitally, they have chosen to continue to use social media as their preferred method of connection, and it is negatively impacting their mental health.

Student stress, anxiety, and depression increased as social media use became more widespread during COVID-19. Drazenovic et al. (2023) reported that students' anxiety, stress and depression increased as a result of excessive social media use. During COVID-19, adolescents' communication and connection was almost entirely through social media and this shift simultaneously increased their stress, anxiety, and depression levels. The surge in social media usage led to greater exposure to content affecting individuals' self-esteem, and also contributed to an increase in sleep deprivation (Woods & Scott, 2016). The mental health concerns and effects will continue to negatively impact adolescents if they cannot regain a healthy online and in-person life balance and develop adequate self-regulation skills.

The increased social media use during the COVID-19 pandemic has exacerbated the adverse effects on adolescent health and academic learning. This effect supports the argument that social media use has significant negative impacts on student learning and on adolescent health and well-being.

Conclusion

Although social media has become a necessary aspect of adolescent life, problematic use is having an adverse effect on their overall health and well-being. Based on a review of the literature, this article examines the detrimental impact that problematic social media use is having on students' physical, social-emotional, and mental health, and on their academic performance. Increased social media use leads to many social-emotional concerns, such as pressure to stay online, peer rejection, fear of missing out (FOMO), cyberbullying, and other risky behaviours. Irresponsible social media use is connected with mental health issues such as addiction, stress, anxiety, depression, self-harm, and suicidal ideation. The physical impacts of social media include lack of exercise, the inability to manage daily tasks, physical ailments, reduced physical activity levels, and increased sleep deprivation. In addition to these concerns,

students are showing more signs of procrastination, poor time management, impaired memory, inability to focus and lack of concentration, which are impacting academic performance. The COVID-19 pandemic increased social media use by shifting society from a blended human communication model to an entirely virtual one. Most of the research reviewed considered the immediate impact of social media use (e.g., social isolation, depressive symptoms, cyberbullying, and increased exposure to harm). Therefore, more research needs to be conducted to determine the long-term effects that social media use has on students. Future considerations must be placed on programming and intervention strategies to facilitate responsible social media use, both inside and outside school.

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