



Behavioral Addiction to Social Media in Children and Adolescents

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Dear Editor,

Currently, millions of people rely on social media platforms such as Facebook, Snapchat, YouTube, Twitter, and Instagram to stay up-to-date on news and current events (1) or to share their thoughts and feelings about an event (2). Although using the Internet and communicating through technology offers many opportunities and benefits, some people may develop addictive behaviors related to the use of social media (3). As of 2020, an estimated 4.5 billion people are using the Internet, representing 59% of the world's population. The United States and China lead the world in terms of the number of Internet users, with approximately 280 million and 642 million users, respectively. A Pew Research Center study found that 54% of people in 21 emerging and developing countries (e.g., Malaysia, mainland China) and 87% of people in 11 advanced economies (e.g., United States, Canada) use the Internet. Rates of social media addiction are low in South Korea and Turkey, with 11.7% of adolescents in South Korea suffering from this addiction (4-8). Studies conducted in Iran have reported that 41.8% of the participants were addicted to social networks (9).

Social media use follows two types of patterns: Active usage, which refers to direct interactions with others on social media (e.g., texting, posting, and commenting), and passive usage, which refers to simply browsing the online lives of others without any interaction and reduces the emotional well-being of users (10). Social media has positive effects on self-presentation and self-

esteem regulation. However, as with any behavioral process, excessive use of social media and lack of self-control can lead to serious consequences such as relationship, emotional, health, and performance problems. These consequences may dramatically alter a person's daily routines, thus having a catalytic effect on problems such as depression, anxiety, impaired self-perception, narcissism, impaired relationships with others, and creating functional problems such as impaired school or achievement, sleep deprivation, sleep disorders, or related health problems. Addictive use of social media is negatively associated with self-esteem (1-3, 9, 10).

In adolescents who become addicted to social media, the release of dopamine in their bodies causes feelings of anxiety that can lead to problems with social behavior in schools, neighborhoods, and peer social environments, and even lead to criminal acts such as defamation, slander, kidnapping, and fraud (11-13).

At the same time as access to cyberspace increases, there are global concerns about behavioral addiction among children and adolescents (11). Excessive use of social media may lead to addiction. Social media addiction is usually considered a type of behavioral addiction (10). Although excessive and pathological use of the Internet is often described with different terms such as Internet addiction, digital addiction, and cyber addiction, there is still no agreed-upon term to describe similar phenomena in the use of social media (11). Behavioral addictions are defined as the inability to

resist an impulse, drive, or temptation to engage in an action that is harmful to the individual or others (14). Each behavioral addiction is characterized by a repetitive pattern of behavior that ultimately interferes with functioning in other domains. Internet addiction is also classified as a behavioral addiction (15-17). Terms such as social media addiction, problematic social media use, and compulsive social media use are used interchangeably to refer to the phenomenon of maladaptive use of social media characterized by addiction-like symptoms and/or impaired self-regulation. Among these terms, social media addiction (including its variants, such as Facebook addiction, social networking addiction, and addictive use of social networking) is the most common and is defined as a maladaptive psychological dependence on social media to the extent that behavioral addiction symptoms are present. Problematic use of social media is another emerging technological addiction that falls into Young's (1999) category of online relationship addiction (18).

The dramatic expansion and easy access to digital technology have caused people to be exposed to and use it from a younger age, which probably contributes to the increase in the prevalence of behavioral addictions. Moreover, during the COVID-19 pandemic, preventive measures such as social distancing and school closures made adolescents spend more time with digital technologies, which ultimately caused behavioral addiction in vulnerable children and adolescents (11). Studies have generally shown that problematic or excessive use of social media has a relatively high prevalence and can have adverse consequences on physical and mental health, especially in young people who are of growing age (10, 19, 20). Excessive use of social media and lack of self-control can lead to serious consequences such as relationship, emotional, health, and performance problems. These consequences may significantly alter a person's daily routines, thus having a catalytic effect on problems such as depression, anxiety, impaired self-perception, narcissism, impaired relationships with others, and causing functional problems such as impaired school achievement, sleep deprivation, sleep disorders, or related health problems. Addictive use of social media is negatively associated with self-esteem (14, 15, 21-23). Adolescents who become addicted to social media experience a release of dopamine in their bodies, which can lead to problems

with social behavior in schools, neighborhoods, and peer social environments, and even lead to criminal acts such as defamation, slander, kidnapping, and fraud (24-27). Disruption in the sleep patterns of social media users may be due to worry and fear of losing information on social media. Besides, constant attention to social media may increase exhaustion and even lead to social media fatigue (SMF). The SMF is defined as a mental and negative feeling of tiredness and exhaustion caused by using social media (28).

One of the main reasons for the addictive use of technology, such as the problematic use of social media, is the inability to self-control (29). It also seems that the habit of using social media is associated with a feeling of immediate pleasure (30). Thus, if the basic needs of people are inadequately satisfied within the family, they may turn to external sources to achieve that feeling of satisfaction, which favors the compensatory use of social media and increases the risk of addictive behaviors as well. Poorer family functioning is also associated with problematic technology use, such as Internet addiction and social media addiction. Previous studies have shown that the feeling of closeness among family members, which is called solidarity, has a protective role against addictions related to compulsive technology use (30). Social media platforms are designed to be very attractive (31). Thus, they encourage users to stay online as long as possible by reinforcing a sense of constant expectation of future rewards (32), and one of the reasons why children become addicted to social media is that social media can provide immediate rewards such as "Likes" from peers and other users (33). Sommantico et al. recently proposed the concept of online fear of missing out (On-FoMO), which is, in fact, strongly positively correlated with psychopathology symptoms and social media addiction as adolescents constantly see their friends posting pictures or updates on the status of their seemingly enjoyable lives (3, 34).

Individual Differences and Social Media Addiction

Several factors can be involved in the occurrence of Internet addiction. Personal risk factors include high levels of depression, obsession, aggression, anxiety, impulsivity, loneliness, low self-esteem, extroversion, weakness in religious beliefs, and dependent, histrionic, narcissistic, obsessive-compulsive, borderline, and paranoid personality traits. On the other hand,

conscientiousness and a normative style are protective factors against online addiction. In fact, normative individuals, by internalizing the expectations and values of others, tend to protect and maintain their identity structure by reducing their use of technological communication. Studies on individual differences showed that heavy users are mainly male, highly educated, and have a greater desire for social interaction, spending time, entertainment, companionship, and connection. Lower family cohesion, conflict with parents, conflict between parents, family functioning, and family resilience are effective family factors. School-related variables such as the level of teacher support, communication with teachers, and attitudes toward school life are associated with Internet addiction. Adolescents who have poor peer relationships may turn to the Internet (e.g., social media) to compensate for their social needs. On the other hand, empirical research has also shown that the failure to satisfy basic needs makes adolescents more vulnerable to addictive social media use. Environmental stressors or situational variables, such as social and recreational restrictions, limited travel and access to in-person peer interactions, as well as stress related to local geopolitical conflicts, can contribute to addictive patterns of social media use. In a geopolitical region with high stress and few opportunities for leisure activities or free association, given the constant availability, relatively easy access, and a false sense of social satisfaction for young people, it is not difficult to imagine increased vulnerability to addictive patterns of social media use. Early access to the Internet, increased access to computer cafes, and exposure to advertisements for Internet games and various Internet content (the seductive and satisfying features of the Internet) are associated with an increased risk of Internet addiction (17, 18, 35-41).

Under the influence of the power of imitation, individuals are more likely to use social media (42). As users find things to be happy about in their lives, their life satisfaction increases, and their level of addiction to social media and the Internet decreases (43-45).

Suggestions for Controlling Social Media Addiction

While social media addiction among children is a growing concern, there are potential solutions to reduce its impact. Cognitive behavioral therapy is one of the most effective group-based treatments for social media addiction (46, 47). Cognitive behavioral therapy typically lasts 2 months, or approximately 8 weekly sessions. The focus of this therapy is to assess the client's usage patterns and then develop a new plan to change the patterns that have formed in the past. External factors, such as activities that force the addict to leave the Internet, can be applied. There are also treatment programs that help clients identify goals for the time they need to use the Internet. This comprehensive approach can be divided into the stages of behavior modification, cognitive restructuring, and harm reduction therapy. One of the greatest benefits of cognitive behavioral therapy is that it helps clients develop coping skills that can be useful both now and in the future (46-49).

The concept of "digital detox", the intentional disconnection from digital devices, has been considered as another potential treatment (50). Digital detoxification involves strategies such as setting aside specific periods of time without using screens, limiting social media consumption, and practicing mindful technology use. By implementing these detoxification methods, individuals aim to regain control over their digital habits, reduce the psychological stress associated with constant connectivity, and develop a healthier relationship with technology. Digital detoxification or social media detox interventions can reduce the negative effects of smartphone use, such as anxiety, depression, stress, overall well-being, and other related psychological indicators (51) (Box 1).

Social media addiction among children is a growing concern that has significant implications for their social, physical, and mental health. Parents, teachers, and social media platforms must work together to create awareness, teach responsible use, and implement practices that promote a healthy balance between online and offline experiences. Focusing on social media addiction can help us ensure that children have a positive and fulfilling relationship with social media while minimizing the potential harm it can cause.

Box 1. Suggestions for Controlling Social Media Addiction**Suggestions**

- Educating children about responsible social media use and setting time limits by parents and teachers
- Open discussions about the potential dangers and consequences of excessive social media use to foster a healthy relationship with technology
- Incorporating digital literacy programs into the curriculum for students by schools
- Teaching students the importance of privacy and respectful online interactions
- Implementing healthy usage promoting measures by social media platforms (for example, features that set time limits for social media users or set reminders to take breaks can help children develop healthier habits)
- Self-help intervention program
- Regulation of computer cafe density and mandatory training of staff to identify and deal with addicted users
- Clarification of regulations on advertising content (such as violence, adult content, etc.) or advertising models

Footnotes

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