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A REVIEW OF THE IMPACT OF DIGITAL MEDIA USAGE ON ADOLESCENT: MENTAL HEALTH AND BEHAVIOUR

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ABSTRACT
In the fast-changing digital age, adolescents are exposed to digital media environments and the digital media environment is influencing unconsciously their mental health, identity formation and behavioural patterns. The current review critically analyses 4 variables: digital media use, anxiety, self-esteem and delinquency, and is based upon a research work titled "Digital Media Influence on Adolescents: Exploring Links between Online Activities, Mental Health (Anxiety and Depression), Self-Esteem and Advertisement Cutting on SW, Delhi". Based on empirical evidence and theoretical models the article discusses critically how excessive or maladaptive use of digital media leads to psychological disorders and risky behaviours among adolescents. The paper ends by highlighting the limitations of the existing literature and suggestions for future research and intervention.
KEYWORDS: digital media, youth, anxiety, self-esteem, delinquency, mental health

INTRODUCTION

Digital media platforms are a crucial and ubiquitous dimension of adolescent existence, influencing how youth communicate, learn, socialize, and construct their identities (Valkenburg & Peter, 2011; Twenge et al., 2017). The interactive nature of cyber environments, such as social networks, video-sharing sites, and online gaming environments, provides adolescents with unprecedented opportunities for access to information and peer interaction. Yet, with these benefits, there is increasing concern about the psychological and behavioural effects of overuse and misuse of digital media. There have been many studies that highlight a relationship between prolonged use of screens and poor mental health such as heightened levels of anxiety and depression, low self-esteem, and increased risk of engaging in antisocial and delinquent behaviour (Kuss & Griffiths, 2017; Przybylski & Weinstein, 2017).
Because adolescence is a period of significant emotional and cognitive growth, they are particularly susceptible to the potential downsides of digital activities (Odgers & Jensen, 2020). With the proliferation of mobile technologies, the line between real and virtual lives continues to be challenged, thereby blurring the boundary between disconnecting and failing to do so, and increasing individuals' perpetual exposure to online social pressures (Huang, 2017). This paper intends to examine this intricate lattice through a critical review of global and Indian evidence focusing specifically on adolescents in urban areas of India like Southwest Delhi. Ultimately the review examines the way in which patterns of digital media use relate to anxiety, self-esteem and behaviour, to reconcile a more complex understanding of the digital challenges facing young people today and provide a basis for informed intervention.

Digital Media Usage Among Adolescents

Today's youngsters live in an increasingly digital world where toys, friends and playmates are increasingly digital, and a smartphone or tablet or computer are not just items they interact with, but are things "they interact with and that interact with them." These platforms support a diverse range of activities such as education, social networking, gaming, entertainment and self-expression. Applications like Instagram, Snapchat and YouTube have now emerged to be an integral part of identity making and social affiliation for this age group (Lenhart et al., 2015). During childhood, adolescents develop as they learn to maintain relationships with peers and search for social approval through online social platforms and individual preferences. But that constant interaction also comes with some psychological and behavioural issues. The figure 1 shows the vicious cycle of digital media overuse.

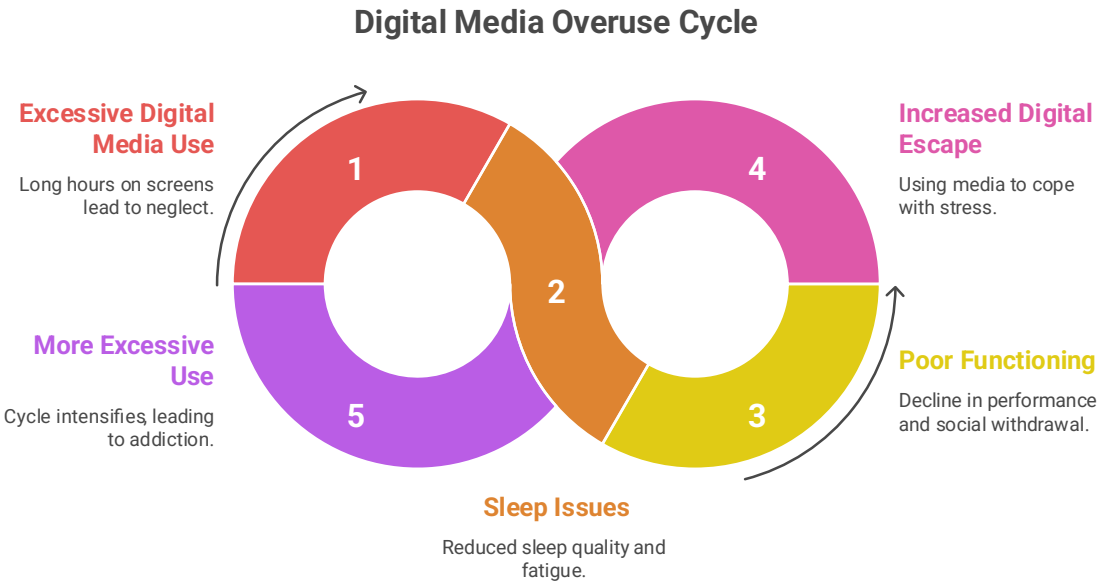

Figure 1: Figure showing the cyclic overuse of digital media

A study by Twenge et al. (2017) found that adolescents spending more than 3 h on digital screens per day had more depressive symptoms, social withdrawal and life dissatisfaction. Social media use is addictive, and individuals who are preoccupied and use it excessively need more likes, comments and shares regularly to satisfy their desire for immediate reward and develop a dependence on this habit, adversely affecting their sleep, academic and social functioning (Keles et al., 2020).

In the Indian scenario, Singh and Mishra (2021) underscored the potential of digital media as a coping strategy in case of adolescents facing academic stress, family conflict, or peer rejection. With a rise in academic pressure and a dearth of open spaces, many Indian teens are finding a safe space in digital platforms. This is even more the case for urban and semi-urban areas where high speed internet and mobile technology access is widespread. But this access comes with potential hazards including internet addiction, cyber bullying and exposure to inappropriate content.

The Digital Media Overuse Scale (DMUS) by Hipp et al. (2023) because it measures significant aspects of overuse in terms of emotional dependency, concerns with dereliction of off-line duties, mental and physical health impact. Elevations on the DMUS for adolescents have been associated with compromised social development, academic involvement, and emotional regulation.

Accordingly, although new media provides adolescents with enriching learning, connecting, and creating opportunities, the way new media are utilized and the contexts in which they are used need to be tracked. Conclusion: Parents, educators and mental health professionals should work together to promote more balanced digital behaviors that reduce vulnerability while enhancing positive mental health.

Youth today spend a lot of time on digital media including social media, video games, and streaming services. According to Twenge et al. (2017) found more than three hours of screen time a day is associated with lower well-being. Digital media is used for identity development, emotional regulation, and maintaining and expanding one's peer network, however it can also lead to dependence and ignoring real-life tasks (Kuss & Griffiths, 2017).

In the Indian context, Singh & Mishra (2021) found that academic pressure and family expectations as well as urban isolation push adolescents into digital escape. The Digital Media Overuse Scale (DMUS) emphasises areas such as emotional dependence and academic influence, implying that digital behaviours are indicative of deeper psychosocial trends.

The table 1 shows the most frequent activities and most often used social media platforms along with the associated risk among adolescents.

Table 1: Common Digital Activities of Adolescents

Activities	Potential Benefits	Potential Risks
Social Media (Instagram, Snapchat, WhatsApp, etc.)	Peer connection, identity formation, social support, information sharing	Addiction, FOMO, social comparison, anxiety, cyberbullying, privacy invasion
Online Gaming (Multiplayer, Mobile Games)	Teamwork skills, strategic thinking, stress relief, community building	Aggression, desensitization to violence, excessive screen time, academic decline
Streaming Services (YouTube, Netflix, etc.)	Entertainment, exposure to new ideas, relaxation, access to educational content	Sedentary lifestyle, overexposure to unrealistic content, procrastination

Online Learning & Educational Platforms	Skill development, academic support, self-paced learning, wider educational access	Screen fatigue, distraction, inequity in access, misinformation
Digital Content Creation (Blogs, Vlogs, TikTok)	Creativity, self-expression, digital skills, opportunities for recognition	Pressure for likes/views, body image concerns, online harassment, digital dependency
Messaging & Chat Platforms	Maintaining friendships, quick communication, emotional support	Cyberstalking, reduced face-to-face communication, dependency, online conflicts

Psychological Impacts of Digital Media

Anxiety

One popular psychological consequence of excessive digital media use is anxiety. According to Valkenburg and Peter (2013), persistent online connectivity results in FOMO (fear of missing out), online social comparison and performance stress, which will increase stress level. The Beck Anxiety Inventory (BAI) has been extensively used to assess these symptoms.

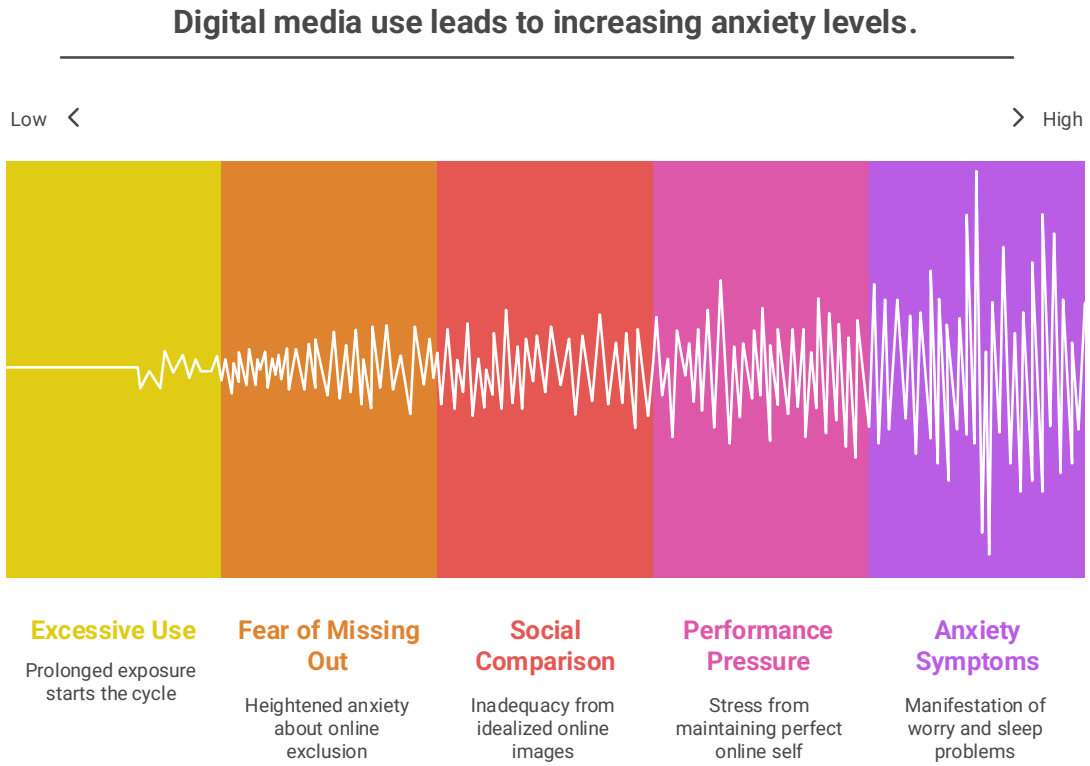

Figure 2: Digital Media use leading to higher anxiety level.

The figure 2 shows the increasing level of anxiety with increase in use of digital media. Research such as Przybylski and Weinstein (2017) has demonstrated a strong positive association between social media use and anxiety, particularly among adolescents who consume passive content. Odgers, Jensen and colleagues (2020) discovered that youth who log on more often to social media sites are also more likely to be diagnosed with generalized anxiety disorder.

Social media impels us to create sanitized versions of our lives, which can become impossible expectations to uphold and stressful to boot. Indeed, it is female adolescents who might be more vulnerable to anxiety elicited by social comparison and cyberbullying (Huang, 2017).

Self-Esteem

Identity One critical element of adolescent identity that virtual communications and digital participation affect is self-esteem. Adolescence is a period of heightened self-awareness and identity formation, and the need for external validation is crucial at this time, and digital spaces are stages for self-presentation, social comparison and feedback from peers (Valkenburg & Peter, 2011).

On the land of social media that the likes of Instagram, TikTok and Facebook inhabit, teens are locked in a permanent round of getting liked; comments and followers are like yardsticks of self-value. Valkenburg & Peter, 2011), and the negative effects are largely the result of over-time empowerment of the medium, where self-worth

increasingly depends on digital feedback and stimuli when adolescents begin to associate cyberspace popularity with social prestige and intrinsic worth. The Rosenberg Self-Esteem Scale (RSES) is a well-established assessment tool used to measure the level of such positive or negative self-perception, and it has been used to examine the psychological influence of the online feedback in several studies.

Perloff (2014) also points to the weaknesses of adolescents, especially young girls, who are subject to internalizing the perfect body images of body in the perfect firearms, and social success in the perfection in the perfection in the perfection that is manipulated through social networks. Such internalization can result in a fragile and externally contingent sense of self that adolescents become vulnerable to depressed mood, disordered eating, and poor body esteem. Pressure to maintain a perfect digital identity could make individuals question themselves, fear of being excluded, and overthink online conversation (Huang, 2017).

And, of course, the combative nature of social media incites constant comparison to everyone else. Adolescents engage in social comparison in which they compare their real lives to the idealized lives of other people online, which may result in negative body image and feelings of inferiority (Valkenburg et al., 2017). This may be particularly damaging for adolescents from disadvantaged or low economic status backgrounds, for whom the disparity between digital representation and real life may be more extreme.

Not all online interactions are bad though, despite these barriers. Best et al. (2014) maintain that positively used, online communities are fertile grounds for support, self-expression and sense of belonging. These insights suggest that platforms that promote creativity and solidarity between peers, such as forums for art, mental health, or shared interests, can help build confidence and resilience.

So, the effect of digital media on teenage self-esteem is not univocal. It depends on the type of use and on individual vulnerabilities, culture, and digital contexts in which young people are involved. Knowledge of this complexity is important for the development of intervention to support healthy self-esteem and prevent psychological harm related to the use of digital media. Valkenburg & Peter, 2011) that self-esteem is more dependent on digital affirmation. The Rosenberg Self-Esteem Scale (RSES) shows that self-image is influenced by feedback on the internet, whether positive or negative.

Perloff (2014) notes how adolescents, mostly girls, soak in the ideal body and social success images celebrated online, producing a weak and externally dependent self-concept. Social media, rather than being empowering, tend to foster atmospheres of exclusion and judgement".

But not all online encounters are bad. Best et al. (2014) posit that communities online can be a support mechanism for self-expression and help increase self-esteem. This emphasizes quality over quantity in digital interactions.

Digital Media and Delinquent Behaviour

Delinquent behaviour includes a variety of criminal/clandestine activities such as cyberbullying, skipping class, drug use, stealing, and vandalism, with potential for detrimental effects on adolescent development and social adjustment. An ever-increasing trend in the literature has identified problematic digital media use as a possible risk factor for the development of such behaviours. According to Hinduja and Patchin (2019) young people who are consistently targeted with cyber aggression, hate speech online, or digital harassment are more likely to experience and manifest antisocial behaviour in real life.

Digital media channels, especially those that enable anonymity and instantaneous contact, also typically lack moderation and can become a breeding ground for misconduct. Social media and multiplayer online gaming systems, for instance, that reward peer acceptance or non-punishment of aggressive and antisocial behaviour, for instance, may contribute to socialisation to aggression and antisocial behaviour (Anderson & Bushman, 2017). This exposure can result in the internalization of harmful norms and a desensitization to delinquent behaviour (Coyne et al., 2018).

Also, the young may be involved in deviant practices in a digital “try out” or because of peer pressure, particularly when they join online groups that idealise and glamorise risky behaviour. There is (Bauman et al., 2013; Huang et al., 2019) evidence to suggest that if adolescents are frequently exposed to or involved in online rule-breaking behaviours (i.e., posting sexual content, doxing or hacking), these patterns repeating offline is more likely.

These behaviours (Bandura, 1977) can be understood through the lens of Social Learning Theory. Peers, peers' influencers or virtual avatars can influence adolescents to simulate deviant behaviours, particularly at first if the other members are perceived to be successful or to receive social rewards. Reinforcing such behaviour in virtual world tend to reduce the moral inhibition and lead to offline delinquency. Thus, such studies are important for prevention efforts targeting youth delinquency by understanding the linkages from digital media exposure to offline behavioural consequences.

Theoretical Perspectives

Several psychological theories provide potential avenues for understanding the mechanisms by which digital media may affect adolescent well-being:

- Uses and Gratifications: This can be described as a theory of media usage emphasizing on active media choices of individuals in order to meet specific psychological and social needs, for example, entertainment, social interaction, and escape (Katz et al., 1973). In the case of teenagers, UGT can help us understand why young people use social media, video games, and content platforms as ways to satiate emotional needs or to cope with stress. Yet when such needs are over-satiated through digital tools, this

can lead to less F2F interactions, and to emotional dysregulation, anxiety or even addictive behavior (Kuss & Griffiths, 2017).

- Social Comparison Theory: This proposition made by Festinger (1954) indicates that people assess their self-concept by comparing to someone else. Through digital mediums, particularly those focused on visual stimulation like Instagram or TikTok, adolescents are inundated with polished depictions of success, beauty and popularity. Such situations of upward comparative proximity too often culminate in discontent for one's own life circumstances, with low self-esteem and symptoms of depression or anxiety as consequences (Valkenburg et al., 2017; Perloff, 2014).

- Cognitive Behavioural Theory (CBT): CBT is based on the relationship between thought, emotions and behaviour. Too much screen time can instil distorted thoughts into young people like "I only have worth if I get likes on my post" or "Everyone else in the world is happier than me." These maladaptive cognitive distortions, amplified by social media encounters can create affective disturbances, including anxiety and depression (Odgers & Jensen, 2020). CBT also provides a framework for intervention models of youths with digital stress wherein maladaptive thoughts will be restructured.

General Strain Theory (GST): Agnew (1992) advances that strain or stress leads individuals to commit delinquency. For some, digital strains like cyberbullying, online exclusion or public shaming, can serve as emotional triggers. Youth who cannot productively communicate their distress are likely to externalize it — based upon our collective work, engaging in aggression, defiance, or other antisocial acts (Hinduja & Patchin, 2019a).
Ecological Systems Theory, formulated by Bronfenbrenner (1979) is that adolescence is seen as a period where development is impacted on by different environmental systems: the microsystem (referring to family and peers), mesosystem (relationship of the microsystem with mesosystems), exosystem (indirect environments like work of parents) and macrosystem (societal and cultural norms). Digital media manifests across all of these layers. For instance, parent opinions about screen time, peer norms surrounding app use, and broader social impacts on tech adoption all shape the behaviours and well-being of adolescents.
Together, these theories highlight the complex, multifaceted role that digital media have among adolescents. Each theory illuminates its own plausible pathways, from individual cognition to broader society, through which digital technology may work to mediate or moderate its impact on the mental health and behavioural outcomes of young people.

Cultural Context in India

Annals of the Indian Academy of Neurology While the literature on adolescents and media is dominated by Western studies, Indian adolescents confront a unique array of socio-cultural issues that impact their relationship with digital media. These factors are immense academic rivalry, conventional social patterns and a scarcity of psychological aids. In Indian families, it seems that stellar academic performance is generally considered to be a major source of family pride and societal status (Gupta et al., 2002), making Indian adolescents all the more susceptible to stress. This pressure is possible to have been searching them towards digital space as a relief/ escape or distraction which leads to their psychological health (Singh & Mishra, 2021).
Moreover, human taboos around mental health problems still limit open discussions and preventive action. Young people suffering from anxiety, depression or online identity confusion as a result of their experiences online may also have difficulty accessing support if they are concerned about stigmatising attitudes or retaliation from others. Family codes of honour, in which personal repression takes a back seat to family reputation, further compound this problem by inhibiting emotional exposure and seeking help.

Gender and Geographic Disparities

Gender norms seminally complicate the digital residing and engagement by conditioning the access to technology. Boys are more likely to be given freedom to explore the digital world independently when compared to digital use by girls, e.g., by engaging in riskier activities (e.g., long hours of gaming; exploring violent content; communicating with strangers in unregulated chat rooms) online (Anderson & Bushman, 2017; Lenhart et al., 2015). Not only does this freedom allow boys to stumble across content which may promote aggression or desensitization to violence, it also buttresses norms of masculinity that are related to dominance and competitiveness.
In contrast, girls frequently experience social surveillance around their online presence and relationships. They are under greater family surveillance and more stringent prescriptions of digital propriety and modesty, especially in Indian households of a traditional sensibility (Singh & Mishra, 2021). So what they do digitally is to rely on socially acceptable like Instagram and WhatsApp where peer endorsement drives much of the activity. Such intense appearance and peer focus is associated with higher levels of anxiety, body image dissatisfaction and cyber victimization among adolescent girls (Perloff, 2014; Huang, 2017).
The urban-rural gap compounds these disparities. Urban adolescents are able to access digital resources with greater frequency, which may not be the case for those in rural settings who may face lower connectivity, infrastructure, and digital literacy (Keles & McCrae, 2020). These gaps are not only about volume, but may also be on quality of digital engagement where rural young people may be more exposed to misinformation, or to

digital exploitation. Girls in remote and regional areas, in particular, might be confronted with a double lockout – of technology and male domination – which restrict their ability to safely and confidently navigate digital spaces. These complex gendered and geographical dynamics are critical to the development of appropriate, comprehensive and culturally-sensitive interventions. Customizing programmes of mental health and digital literacy interventions to the local context can help reduce the disproportionate psychological burden on young people and foster healthier digital practices among varied social strata.

Gaps in the Literature

Despite increasing research, however, there are still a number of gaps:

- Most of the studies are correlational, so it's hard to deduce cause and effect.
- There are limited longitudinal studies on the long-term implications of digital media use.
- Cultural and socioeconomic moderators are vastly unexplored.
- There is relatively little attention to resilience factors and to protective online environments.

Table 2: Research Gaps and Future Directions

Current Gap	Why It Matters	Suggested Future Work
Most studies are correlational	Correlation does not prove causation; cannot establish directionality of effects	Use experimental or quasi-experimental designs to test causal relationships
Limited longitudinal studies on long-term implications	We don't know how digital media habits affect adolescents across time	Conduct multi-year longitudinal studies to capture developmental trajectories
Cultural and socioeconomic moderators unexplored	Cultural context (e.g., Indian adolescents) may shape both risks and benefits differently	Explore cross-cultural comparisons and include socioeconomic diversity
Little attention to resilience and protective online environments	Focusing only on risks overlooks positive coping mechanisms and supportive communities	Investigate protective factors such as parental mediation, digital literacy, and peer support networks

The table no. 2 shows the current research gap and future directions in this field. Future studies need to embrace comprehensive, situation-sensitive methodologies that draw on both quantitative measures and rich qualitative descriptions.

CONCLUSION

Adolescent mental health and behaviour is profoundly shaped by digital media. In each case, an extreme or maladaptive use can be associated with an exaggerated anxiety, a loss of self-esteem, as well as a risk of delinquency. But not all digital interactions are bad — platforms can provide support, creativity and learning. There is a pressing need for stakeholders to invest in digital literacy, mental health literacy, and positive and supportive media environments to support healthy media behaviours among adolescents.

REFERENCES

1. Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. Criminology, 30(1), 47–88.
2. Anderson, C. A., & Bushman, B. J. (2017). The effects of violent video games on aggressive behaviour. Journal of Youth and Adolescence, 46(1), 1–15.
3. Bandura, A. (1977). Social learning theory. Prentice Hall.
4. Bauman, S., Toomey, R. B., & Walker, J. L. (2013). Associations among bullying, cyberbullying, and suicide in high school students. Journal of Adolescence, 36(2), 341–350.
5. Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media, and adolescent wellbeing: A systematic narrative review. Children and Youth Services Review, 41, 27–36.
6. Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.
7. Coyne, S. M., Stockdale, L., & Nelson, D. A. (2018). Exposure to violent video games and adolescents' physical aggression. Developmental Psychology, 54(2), 249–263.
8. Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7(2), 117–140.
9. Hinduja, S., & Patchin, J. W. (2019). Cyberbullying: Research and implications. Routledge.
10. Hipp, D., Gerhardstein, P., Blakley, E. C., Hipp, N., & Markle, T. (2023). Digital Media Overuse Scale (DMUS) [Unpublished scale].
11. Huang, C. (2017). Time spent on social network sites and psychological well-being: A meta-analysis. Cyberpsychology, Behavior, and Social Networking, 20(6), 346–354.

12. Huang, G. C., Kim, S. J., & Kim, Y. (2019). Adolescent delinquent behaviour and online communities. Journal of Adolescence, 72, 50–60.
13. Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. Public Opinion Quarterly, 37(4), 509–523.
14. Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The influence of social media on depression, anxiety, and psychological distress in adolescents. International Journal of Adolescence and Youth, 25(1), 79–93.
15. Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. International Journal of Environmental Research and Public Health, 14(3), 311.
16. Lenhart, A., Smith, A., Anderson, M., Duggan, M., & Perrin, A. (2015). Teens, technology and friendships. Pew Research Center.
17. Odgers, C. L., & Jensen, M. R. (2020). Social media use and adolescent mental health: The good, the bad, and the unknown. Nature Human Behaviour, 4(6), 720–730.
18. Perloff, R. M. (2014). Social media effects on young women's body image concerns: Theoretical perspectives and an agenda for research. Sex Roles, 71(11–12), 363–377.
19. Przybylski, A. K., & Weinstein, N. (2017). A large-scale test of the Goldilocks hypothesis: Quantifying the relations between digital-screen use and the mental well-being of adolescents. Psychological Science, 28(2), 204–215.
20. Singh, R., & Mishra, S. (2021). Digital media and its cultural implications for Indian adolescents. Journal of Indian Psychology, 39(1), 29–42.
21. Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2017). Increases in depressive symptoms, self-harm, and suicide among U.S. adolescents after 2010 and links to increased smartphone use: The rise of the smartphone and adolescent mental health. Clinical Psychological Science, 6(1), 3–17.
22. Valkenburg, P. M., & Peter, J. (2011). Online communication among adolescents: An integrated model of its attraction, opportunities, and risks. Psychological Bulletin, 137(5), 830–856.
23. Valkenburg, P. M., & Peter, J. (2013). The effects of social media use on adolescents' self-esteem. Current Directions in Psychological Science, 22(1), 25–29.
24. Valkenburg, P. M., Koutamanis, M., & Vossen, H. G. M. (2017). The concurrent and longitudinal relationships between adolescents' use of social network sites and their social self-esteem. Computers in Human Behaviour, 76, 35–41.