YOUTH, SOCIAL MEDIA, AND DIGITAL OVERSTIMULATION:
A SYSTEMATIC LITERATURE REVIEW AND BIBLIOMETRIC ANALYSIS OF PSYCHOLOGICAL AND BEHAVIOURAL EFFECTS

SRISHTI JAIN
ACADEMIC ASSOCIATE INDIAN INSTITUTE OF MANAGEMENT, INDORE, INDIA
EMAIL: SRISHTIJAIN@IIMIDR.AC.IN

DURGESH DANGI
ACADEMIC ASSOCIATE INDIAN INSTITUTE OF MANAGEMENT, INDORE, INDIA
EMAIL: DURGESHD@IIMIDR.AC.IN

Abstract: The rapid rise of social media has transformed how young people connect, learn, and construct identity, but its overuse has raised growing concerns. This study presents a systematic literature review and bibliometric analysis of research on excessive social media use among youth, with particular focus on psychological and behavioral outcomes. Findings reveal a clear shift in research: earlier work emphasized broad concerns such as sleep disruption, procrastination, and addictive use, whereas more recent studies highlight deeper issues including anxiety, depression, emotional exhaustion, FoMo, multitasking, and academic decline. Emerging themes such as media burnout, withdrawal from offline life, and the pressures of influencer-driven comparison point to new challenges in understanding digital overstimulation. By mapping research trends and synthesizing evidence, this review underscores the dual importance of theory and practice: advancing knowledge of youth vulnerabilities while guiding interventions in education, policy, and mental health to foster healthier digital engagement.
Keywords: Social media overuse, Psychological effects, Behavioral outcomes, Systematic literature review, Bibliometric analysis

INTRODUCTION

In the last decade, social media expanded from a niche portal of online interaction to a central element of daily life. Social media platforms like YouTube, Twitter (now X), TikTok, Snapchat, and Instagram are deeply embedded in the daily routines of younger generations, shaping the way they communicate, learn, and develop their sense of identities. To young people and young individuals, social media is more than a source of entertainment; it provides a platform for maintaining relationships, subscribing to news sources, and self-expression (Naslund et al., 2020). According to latest global research, an average teenager spends more than three hours a day on social networking platforms, with many of them exceeding six hours or more during weekends (Fresku et al., 2025). In India and other emerging digital markets, this figure is witnessing a rapid growth due to widespread smartphone penetration and affordable data access. The advantages presented by these platforms are undeniable, as they enable instant communication, provide access to vast information, and encourage involvement in global discussions. However, they have also raised significant concerns regarding their potential harms. Academicians, educators, guardians, and mental health specialists increasingly worry about the psychological and behavioural consequences associated with excessive social media engagement. In contrast to conventional media, social media is characterized by its interactive, personalized, and constant availability, which fosters conditions for compulsive usage . Features like infinite scrolling, algorithmically curated recommendations, and push notifications are intentionally designed to seize attention and extend usage time, leading to concerns about their implications for mental health and cognitive functioning (Beyari, 2023).

Teenagers and young adults represent a particularly vulnerable demographic in this context. Developmental psychology emphasizes significance of these formative years for identity formation, self-concept, and the development of emotional regulation skills. At the same time, peer pressure is at its peak, making social approval a strong motivator (Khalaf et al., 2023). Social media capitalizes on these inclinations by issuing rewards in the form of greater visibility, likes, and shares, the metrics that can easily translate into feelings of acceptance or rejection. Youth are thus unusually vulnerable to the adverse psychological effects of social media overuse compared to adult groups and might experience anxiety, depression, loneliness, and reduced self-esteem as a result.

Studies show that social media seriously disrupts cognitive processes essential to academic achievement (Garcia-Ortiz et al.,2025). The multitasking across multiple apps notifications, and the constant lure of new content competes with our limited attentional resources (Segijn et al., 2019). This results in reduced concentration, short attention spans, and difficulty in retaining information. In addition to this, sleep disruption often caused by late-night scrolling or "doomscrolling," can significantly jeopardize academic performance and overall well-being. The problem, therefore, goes well beyond entertainment or lifestyle and reaches into domains essential for future outcomes (Kales et al., (2020).

Aside from mental illness and academic performance, other concerns are being discussed in newer literature. One such issue is media burnout, which is observed when individuals feel exhausted, detached, and disconnected in both online and offline activities (Bo Han, 2018). Another is the rise of influencer culture or the phenomenon of chronically comparing oneself to others and feeling dissatisfaction (Beyari, 2023). Teens are continuously exposed to curated photos of ideal lifestyles, success, and beauty standards that might feel unattainable. This is related to issues of body dissatisfaction, consumerism, and added pressure to conform. Quick video apps such as TikTok exacerbate these problems by emphasizing fleeting viewing time, trend-following, and mainstream challenges inducing performance anxiety and approval-seeking through likes and followers. Identity construction also emerges as a critical concern. Most adolescents are pressurized to present a perfect life on social media, but this may diminish their real self and widen the gap between one's real self and virtual self. This may undermine confidence and contribute to emotional pressure in the long run. In this sense, overusing social networking sites is more than the amount of time spent on social networks, rather how it influences their values, perception of themselves, and relationship-building (Lee et al., 2020).

Over the past decade, the research on excessive social media usage has grown considerably, but its focus has shifted in notable ways. Earlier studies tended to dwell on general outcomes, such as disturbances in sleep regulation, tendencies toward procrastination, and possibilities of addict-like behaviour. The studies portrayed overuse mainly as an issue surrounding matters of lifestyle preference or an escape from daily responsibilities. However, recent studies have turned to examining deeper psychological and behavioural outcomes. Concepts like fear of missing out (FoMO), anxiety, emotional exhaustion, and multitasking have gained prominence, reflecting a more nuanced understanding of the problem.

Despite this progress, several gaps exist. Much of the literature is highly based on Western contexts, North America and Europe in particular, and may not capture the experiences of youth in other cultural and socioeconomic contexts. In many regions, including India, Southeast Asia, and Africa, the dynamics of social media use are shaped by different cultural norms, economic realities, and levels of digital literacy. Furthermore, most research tends to emphasize negative outcomes, often framing youth as passive victims of digital overstimulation. Less attention has been given to protective factors that may buffer against harm. For example, some youth maintain healthy digital habits despite heavy use, suggesting the presence of resilience factors such as supportive family environments, conscious digital literacy, or engagement in offline hobbies. Identifying and strengthening these protective pathways could be just as important as documenting the risks.

Understanding the impact of excessive social media use on youth has both theoretical and practical significance. Theoretically, it contributes to broader debates in psychology, sociology, and media studies about how digital environments shape human development. It challenges existing models of attention, identity, and social behaviour by placing them within a context of continuous connectivity and algorithm-driven content. Practically, the insights are crucial for educators, policymakers, and mental health professionals seeking to design interventions. Digital literacy programs, self-regulation strategies, and awareness campaigns are among the tools that can mitigate negative outcomes, but these efforts require a solid evidence base to be effective.

METHODOLOGY

This study employs the Systematic Literature Review combined with Bibliometric Analysis to consolidate evidence on the impact of excessive use of social media on the psychology and behaviour of teenagers and youngsters. The systematic literature review is done folowing a structured five-stage framework:

1. **Determining the research questions**

The objective is to synthesize evidence on the psychological and behavioural impact of social media overuse among youth. Research questions focus on psychological effects, behavioural changes, and evolving trends within the last decade. The research questions are as follows:

➢ What does existing research reveal about the psychological effects (such as anxiety, depression, and stress) and the behavioural changes (e.g., attention span, social interaction, academic performance) of social media overuse among youth?

➢ How have research trends and themes on the effects of excessive social media use among youth evolved in the last decade?

➢ What new concerns or emerging patterns related to social media overuse are evident in recent literature?

2. Research design and literature search

The literature search was done by reviewing studies published between 2015 and 2025 to capture recent developments and trends. A predefined search string using the TITLE-ABS-KEY syntax was applied in the data search process on the electronic Scopus database, yielding a total of 242 articles. References from the retrieved studies were also cross-checked for additional literature.

Search String:

ITLE-ABS-KEY (overuse of social media) AND PUBYEAR > 2014 AND PUBYEAR < 2026 AND (LIMIT-TO (EXACTKEYWORD , "Social Media") OR LIMIT-TO (EXACTKEYWORD , "Adolescent") OR LIMIT-TO (EXACTKEYWORD , "Internet") OR LIMIT-TO (EXACTKEYWORD , "Addiction") OR LIMIT-TO (EXACTKEYWORD , "Internet Addiction") OR LIMIT-TO (EXACTKEYWORD , "Anxiety") OR LIMIT-TO (EXACTKEYWORD , "Behavior, Addictive") OR LIMIT-TO (EXACTKEYWORD , "Social Media Addiction") OR LIMIT-TO (EXACTKEYWORD , "Loneliness") OR LIMIT-TO (EXACTKEYWORD , "Distress Syndrome") OR LIMIT-TO (EXACTKEYWORD , "Academic Performance") OR LIMIT-TO (EXACTKEYWORD , "Behavioral Addiction") OR LIMIT-TO (EXACTKEYWORD , "Overuse") OR LIMIT-TO (EXACTKEYWORD , "Stress") OR LIMIT-TO (EXACTKEYWORD , "Young Adult")) AND (LIMIT-TO (LANGUAGE , "English")))

Total papers (n=242) were exported in the CSV. file format, which were then used as data for Bibliometric Analysis. Bibliometric Analysis is a significant and widely applied method employed in the analysis and evaluation of published works within a specific field. For this given topic, it is applied to organize and critically review applicable published literature in a well-structured order, to determine prevalent research inclinations and identify gaps to be addressed.

3. Selection of relevant studies

To narrow down the papers selected for the review, the following inclusion and exclusion criteria were used to ensure relevance and quality.

Inclusion criteria:
(1) Studies that looked for the effect of social media on psychological health.
(2) Studies focusing on social media and mental health.
(3) Studies published in peer reviewed and indexed journals available online.
(5) Literature published in English.

Exclusion criteria:
(1) Studies with ir-relevant or unproven information on the topic.
(2) Unpublished studies
(3) Any study published before 2015.

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) software was used for database screening, following the PRISMA flowchart protocol (identification, screening, eligibility, inclusion). All the articles were reviewed and articles that did not meet the inclusion criteria were excluded. After screening, 24 studies were selected for detailed analysis and final findings. The selection of reviewed articles is done using PRISMA, as shown in flow diagram (Figure 1).

4. Data analysis

Systematic Literature Review: Content analysis of the selected 24 articles was conducted to synthesize evidence on the psychological and behavioural effects of social media overuse. The data accrued include research methodology, sample profiles, results on social media impact concerning mental health, as well as intermediary variables. These included studies that were subject to thematic analysis based on their interventional characteristics, methodologies, as well as efficacy outcomes. In addition to that, mechanisms, strengths, and limitations of each intervention approach were also investigated to identify gaps and directions for future preventive interventions to address the problem.

Bibliometric Analysis: Articles (n=242) were examined using variables like citation counts, co-occurrence of keywords, authors, publication years, and abstracts of content. This analysis helped in visualizing and mapping key research clusters and emerging topics in the field. The software VOSviewer version 1.6.20 was utilized in analysing the content of the documents on frequent keywords and popular research subjects. Lastly, results of the Bibliometric Analysis were combined in order to present an overview of the current state of study. This helped in the identification of gaps in the research and rising trends, while also providing a solid theoretical foundation for the development of future study.

5. Reporting of results

The findings are presented by aligning bibliometric trends with the systematic review insights. This dual approach highlighted the evolution of research themes and the empirical evidence on psychological and behavioural outcomes related to social media overuse among youth. The results of the Bibliometric Analysis are represented through network maps and visualizations. While the results of the systematic literature review are reported in the form of a summary table of key findings, including assessed factors such as psychological effects (anxiety, depression, and stress) and the behavioural changes (attention span, social interaction, academic performance).

RESULTS

The literature search yielded 242 Articles from three databases. After removing 43 duplicates and unknown articles, screening on titles excluded 128 of 199 research papers. The remaining 71 articles were then screened on the basis of abstracts, excluding 30 more, leaving 41 papers. On reading the full text, 19 papers were found to be ineligible, based on our inclusion and exclusion criteria. The PRISMA flowchart (Figure 1) below provides further detail on reasons for exclusion. Later, 2 additional articles were added through the reference list of the included studies. Overall, a total of 24 papers were included for the review.

Description of studies
Across 24 studies, in terms of research design 8 were cross-sectional, 5 narrative reviews, 5 Systematic Literature Reviews, 4 quantitative surveys and 2 Longitudinal studies. This systematic literature review tried to cover all major countries of the world including USA, UK, China, India, South Korea, Singapore, Saudi Arabia, Germany, Spain, Netherland, Ghana, and a few more. The participants included in all the studies average from 15 to 35 years of age, targeting youth as sample, with sample size varying from 19 to 35,000. The major platforms focused in this study are Facebook, Instagram, TikTok, WhatsApp, Twitter, YouTube and Snapchat. The reviewed papers are summarized in Table 1. and include necessary information of papers together with major aims and finding of the studies.

Trends in study development
The selected studies from 2015 to 2025 indicate a clear evolution in how scholars approached the relationship between social media overuse and youth psychology and behaviour. In the early phase (2015-2017), research was concentrated on constructs such as change in technology, internet addiction, ICT overload, overuse of social media, highlighting general psychological strains like fatigue, aggression, fear, and reduced motivation. The studies usually relied on cross-sectional survey designs, focusing on platforms like Facebook and Twitter. These issues gave rise to dissatisfaction which increased intentions to discontinue use or withdrawal from such platforms (Zhang et al., 2016). According to Montag and Walla, discontinue use or withdrawal from such platforms (Zhang et al., 2016). According to Montag and Walla (2016), internet addiction also causes the habit of procrastination over daily tasks by casually surfing or posting in social media platforms.

Open Access
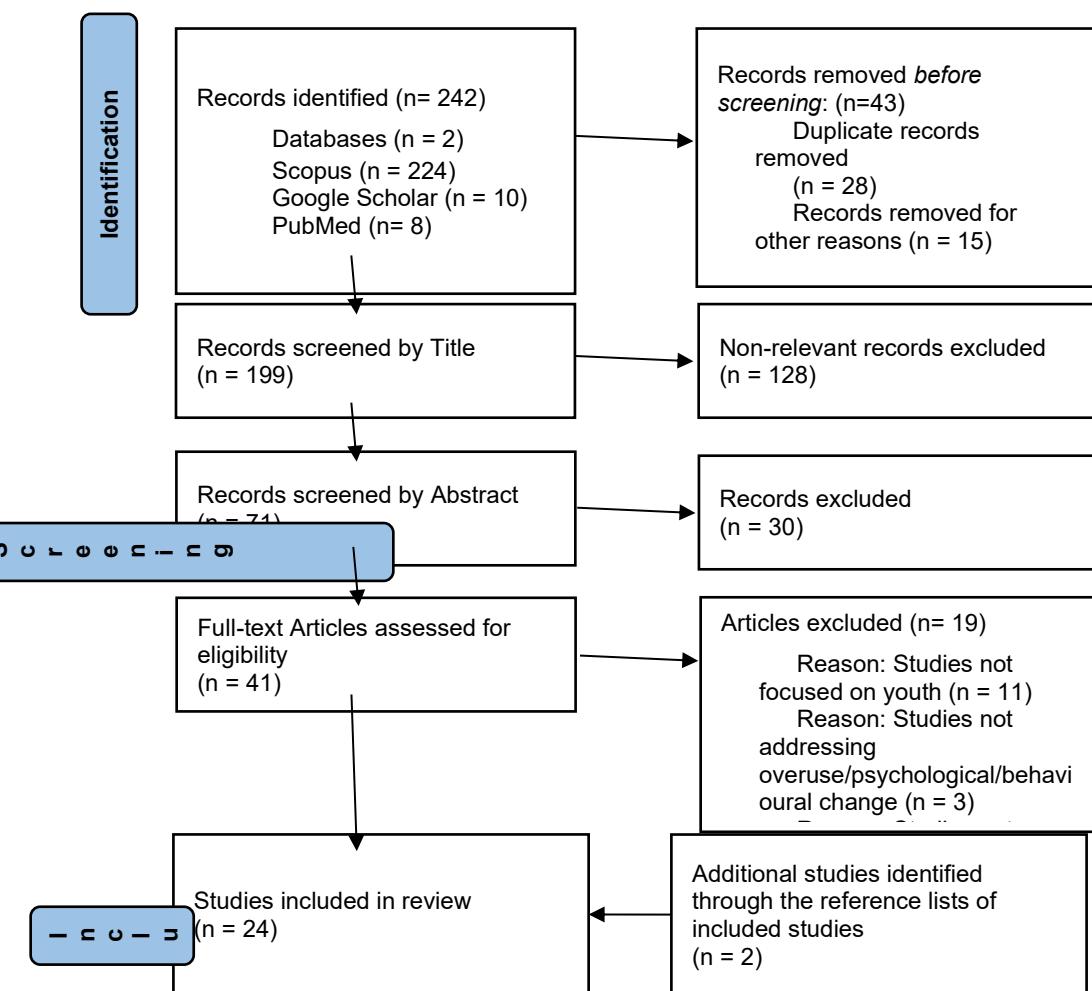
FIGURE 1 PRISMA 2020 flow diagram: Result of search and study selection criteria

From 2018 to 2020, the research began to diversify. More attention is paid to critical psychological outcomes such as anxiety, depression, loneliness and self-esteem. Twenge and Campbell (2018) suggest that higher the screentime, lower the psychological and behavioural wellbeing of the user. This phase also witnessed the rise of media burnout, linking excessive use of social media with emotional exhaustion and withdrawal behaviour (Han, 2018). Segijn et al. (2019) mapped how social media multitasking impairs attention span, dilutes memory and performance, which further connects to youth's academic and behavioural outcomes. Keles et al. called social media as socially constructed reality and implies an 'association' between social media use and mental health problems.

The field underwent a considerable maturation beginning in the year 2021 and continues until the present day. The COVID-19 pandemic emerged as a prominent contextual factor, reinforcing youth dependence on platforms such as Instagram, TikTok, WhatsApp, and Snapchat (Liu et al. 2021). Research, during this period, expanded beyond platform use and focused on particular features—such as likes, comments, and followers—that foster validation-seeking behaviours. Psychological effects became more nuanced, with studies reporting paranoia, suicidality, body image concerns, and technostress, while behavioural outcomes broadened to include sleep disruption, risky online engagement, and civic participation next to traditional academic performance measures (Khang et al., 2025). This phase saw a methodological shift toward systematic reviews, longitudinal designs, bibliometric analyses, and mixed-method approaches, reflecting the field's growing sophistication.

Overall, the decade-long body of research highlights approaches from generalized concepts of social media "addiction" toward a more differentiated understanding of how platform-specific features and user behaviours contribute to diverse psychological and behavioural impacts among youth.

TABLE 1 Summary of Studies.

Author/s (Year of Publication)	Population/ Sample Size	Study Design	Aim	Psychological/Behavioural Effects Assessed	Key Findings
Lee et al. (2015)	201 participants (university students & young adults)	Quantitative survey using stress theory models	To identify dimensions of ICT overload and examine their effects on SNS fatigue.	Exhaustion, reduced motivation, difficulty concentrating, disrupted productivity, reduced performance in daily/academic tasks	Younger users are especially vulnerable to SNS fatigue due to high daily usage (72.8 min average). Overuse links to stress, cognitive strain, and negative academic/social outcomes.
Valkenburg et al. (2016)	Not empirical	Narrative review of theories + synthesis of meta-analyses	To analyze trends and commonalities among digital/social media effects theories; assess its effects on individuals cognitive, emotional, and behavioural terms	Anxiety, fear, loneliness, aggression, attention (ADHD-related behaviours), prosocial/antisocial behaviours, academic-related processing	ADHD-related behaviours moderately associated with media multitasking. Effects are indirect, conditional, and transactional, shaped by user traits, social context, susceptibility, and selective exposure.
Zhang et al. (2016)	525 Qzone users (students and working adults)	Quantitative survey using stressor–strain–outcome framework	To investigate social media overload leads to fatigue and dissatisfaction, and how its strains affect discontinuous usage intention.	Social network fatigue, discontinuous usage (taking breaks, reducing intensity, switching to alternatives, abandoning SNS)	Social network fatigue strongly predicts discontinuous usage intention. Age and gender moderate effects: men and older users show higher fatigue from overload and significantly predicts dissatisfaction.
Montag and Walla (2016)	Not empirical	Opinion/theoretical article	To argue why studying digital overuse is important beyond "addiction" models & lead to productivity loss and harm to social/psychological well-being	Stress, anxiety, depression risk, frustration, reduced productivity, impaired attention, procrastination, diminished face-to-face social interaction, potential ADHD link	Overuse of smartphones/social media reduces productivity; activates negative emotional circuits; undermines real-life social skills (loss of eye contact, emotion recognition).

Author/s (Year of Publication)	Population/ Sample Size	Study Design	Aim	Psychological/Behavioural Effects Assessed	Key Findings
Suldo et al. (2016)	500 high school students	Cross-sectional, quantitative survey	To test a dual-factor model of mental health (psychopathology + subjective well-being) in adolescents and its link to academic, social, identity, and physical adjustment, among youth.	Internalizing/externalizing symptoms, subjective well-being, Academic adjustment, social adjustments, identity development	Students with high SWB + low psychopathology ("complete") had the best academic, social, identity, and physical outcomes. Vulnerable (low SWB, low symptoms) showed worse academic attitudes, health, and relationships. Symptomatic-but-content (high SWB + high symptoms) fared better than "troubled" peers, showing SWB buffers negative outcomes.
Bo Han (2018)	144 valid Facebook users (college students; undergrad + grad)	Quantitative, Survey-based, Exploratory & Confirmatory Factor Analysis (EFA & PLS)	To define social media burnout, create a measurement scale, and examine its effect on users' continuance intention	Emotional exhaustion, depersonalization, ambivalence (burnout dimensions); withdrawal/avoidance behaviours	Burnout significantly negatively impacts continuance. Developed and validated new 11-item Social Media Burnout Scale.
Twenge and Campbell (2018)	40,337 children and adolescents (ages 2–17) from the 2016 National Survey of Children's Health	Cross-sectional study	To examine how different levels of daily screen time are associated with psychological well-being among adolescents	Anxiety, depression (diagnoses), stress, attention span, social interaction (making friends, arguing, being difficult to care for), academic-like behaviours	More than 1h/day, screen time is linked with lower psychological well-being. Adolescents at 7+h/day were >2x more likely to have depression/anxiety diagnoses, mental health treatment, or medication use. High users showed more distractibility, poor emotional regulation, difficulty finishing tasks, and more conflict with caregivers.
Segijn et al. (2019)	Not empirical – synthesizes prior studies	Review & methodological synthesis	To evaluate how media multitasking has been manipulated and measured in previous studies, and provide guidelines	Cognitive load, reduced ability to counterargue, divided attention, poorer accuracy, impaired academic outcomes	Media multitasking generally reduces cognitive performance (memory, comprehension). Heavy multitaskers show deficits in executive control and attention. Guidelines emphasize balancing realism with experimental control.

Open Access

Keles et al. (2020)	Adolescents (12–18); total sample >35,000	Systematic review	To synthesize existing evidence on how social media use impacts adolescent depression, anxiety, and distress	Anxiety, psychological distress, self-esteem, sleep disturbance, academic performance (indirect), risky online behaviours	Found consistent associations between high social media use and psychological distress. Negative effects are stronger for passive scrolling use than interactive use. Evidence showed the trend is toward harm with overuse.
Naslund et al. (2020)	Individuals with mental illness	Narrative literature review	To summarize current research on social media's impacts mental health, exploring both risks and opportunities in mental health practice	Anxiety, loneliness, self-esteem, paranoia, suicidality, academic-like participation, daily functioning	- Benefits: Facilitates social interaction, reduces loneliness, and offers peer support. - Risks: High use linked with depressive symptoms, anxiety, social isolation, negative social comparison, and psychosis. - Opportunities: Social media can augment mental health interventions.
Author/s (Year of Publication)	Population/ Sample Size	Study Design	Aim	Psychological/Behavioural Effects Assessed	Key Findings
Sharma et al. (2020)	935 (mostly university students/young adults)	Systematic review	To incorporate evidence on how social media affects mental health (positive, negative, neutral effects)	Depression, anxiety, self-esteem, reduced offline interaction, poor sleep, academic disengagement, risky behaviours	Out of 16 studies, 8 reported negative effects (increased alcohol use, moral disengagement), 5 found positive (reduced stigma, psychoeducation), and 3 were neutral. Passive use was consistently associated with poorer well-being, with effects emerging even in 10–20 minutes of exposure.
Li et al. (2021)	366 valid respondents	Quantitative study + structural equation modeling (SEM)	To examine influencers, informational incentives, and FoMO's consequences on psychological anxiety.	Psychological anxiety, compulsive decisions, social engagement, information-seeking behaviour	FoMO strongly mediated informational incentives platform use. Continued use increased social engagement and information support, but also heightened psychological anxiety.

Author/s (Year of Publication)	Population/ Sample Size	Study Design	Aim	Psychological/Behavioural Effects Assessed	Key Findings
Hartanto et al. (2021)	Adolescents and young adults	Opinion article	To critically examine whether social media use leads to depression or these symptoms drive increased use (reverse causality)	Depression, anxiety, self-esteem, emotional distress, compulsive checking, social comparison behaviours	Longitudinal evidence suggests depression more often predicts social media use than vice versa, though bidirectional effects exist. Abstinence shows no consistent well-being gains and may raise stress or loneliness.
Pa et al.(2021)	91 university student-athletes (Gen Z, born 1995–2012)	Cross-sectional study	To investigate the effect of social media addiction on academic performance of Gen-Z student-athletes during COVID-19 lockdown	Stress and agitation linked indirectly, academic performance (GPA), attention span, procrastination	Addiction explained 57.6% of variance in GPA - strong negative academic impact. Overuse led to procrastination, loss of focus, distraction. Suggested coping solutions: turning off notifications, hobbies, family reconnection.
Liu et al. (2021)	322 Gen Z social media users	Cross-sectional; Structural Equation Modeling (SEM); based on S-O-R model	To investigate how information overload during COVID-19 influenced Gen-Z's psychological states and discontinuance intention on social media, and also test the moderating role of FoMO	Fatigue, psychological ill-being (stress, anxiety), discontinuance intention	Information overload significantly increased fatigue and fear. Both increase discontinuance intentions. FoMO buffers these effects & reduces likelihood of discontinuance. Highlights pandemic "infodemic" impact on youth mental health and behaviour.
Author/s (Year of Publication)	Population/ Sample Size	Study Design	Aim	Psychological/Behavioural Effects Assessed	Key Findings
Kwok et al. (2021)	15 university students	Longitudinal study	To examine how social media affect physical activity, sleep, quality of life (QoL), and academic performance	Psychological QoL, sleep quality, social media addiction, academic performance (GPA), attention/distraction	Social media use and smartphone addiction negatively correlated with sleep quality and academic performance; physical activity positively correlated with psychological QoL; social media linked to better social QoL.
Mohammed et al. (2022)	622 university students	Cross-sectional study + regression modeling	To develop and test a Social Media Influence Factor (SMIF) model for measuring the impact of social media use on GPA	Anxiety, sleep disturbance, stress linked to constant notifications, academic performance (GPA), attention span, time management	All SMIF variables are negatively related to GPA. Notifications had the strongest negative impact, followed by friends, groups, then time.The number of platforms used was not significant. The model explained 30.7% variance in GPA, prediction quality 55.4%.

Open Access

Apoorva et al. (2022)	Focus on youth/teenagers and adults	Systematic bibliometric review + longitudinal meta-analysis	To examine research patterns and themes in literature on SMU and mental health	Social anxiety, academic performance, social comparison, excessive screen time, phubbing	Found consistent associations between excessive SMU and negative mental health. Adolescents most at risk. Identified policy need for regulation & mental health literacy.
Singh et al. (2023)	434 postgraduate students	Cross-sectional survey; SSO theoretical model	To examine indirect relationship between compulsive social media use and academic performance decrement	Mental strain, emotional exhaustion, academic performance decrement, reduced attention span	Compulsive use of SM positively linked to fatigue and reduced academic performance. It mediates the relationship while self-control moderates the negative effects (higher SC reduces impact).
Beyari (2023)	385 youth	Cross-sectional study using Analytical Hierarchical Process (AHP)	To identify how social media features most significantly contribute to increased mental health problems	Anxiety, emotional distress, low self-esteem, loneliness, excessive browsing, compulsive validation-seeking, media overconsumption	Social media harms stem less from overall use and more from validation-seeking features like likes, comments, and followers, which strongly predict poor mental health. Since entertainment drives use despite risks, these results align with global evidence linking validation culture and influencer dynamics to worsen youth well-being.
Author/s (Year of Publication)	Population/ Sample Size	Study Design	Aim	Psychological/Behavioural Effects Assessed	Key Findings
Khalaf et al., 2023	Adolescents & young adults	Systematic Review	To assess the impact of social media use on psychosocial functioning, health, and well-being of young adults	Depression, body image concerns, attention span, academic performance, social interactions, alcohol use, cyberbullying behaviours	Excessive social media use is linked to depression, anxiety, stress, disordered eating, and poorer psychosocial outcomes, particularly among females. Risks include substance use and harmful appearance-based comparisons.

Open Access

Khang et al. (2025)	University students	Systematic Review + Bibliometric Analysis	How does social media usage affect university students' mental health?	Anxiety, depression, academic performance, sleep quality, focus, social interactions	Overuse linked to depression, anxiety, stress, poor academic performance; COVID-19 increased dependence.
García-Ortiz et al. (2025)	Adolescents, young adults, general population	Perspective, evidence synthesis	Summarize research on impact of overuse and make recommendations for digital detox with physical exercise	Depression, FoMo, attention span, sedentary behaviour, academic performance, social interaction	Youth highly vulnerable; over 25% prevalence of smartphone addiction, 17% social media addiction, strong links to FoMo and nomophobia; excessive use harms mental health, sleep, and academic outcomes. 13 evidence-based recommendations for digital-detox.
Fresku et al. (2025)	n = 440 university students	Cross-sectional study	Assess extent of social media use and its impact on students' mental health, well-being, academic life	Stress, addiction, insomnia, academic distraction, addiction, time management issues, varying impact on academic achievement	Majority (79.2%) use social media multiple times daily; 3-5 hrs average usage; 87.7% perceive negative effects; strong links found between usage and mental health problems including addiction and stress; mixed effects on academic performance

Bibliometric examination of literature:

The Initial results of 242 articles were used to perform bibliometric analysis using VOSviewer software to identify research trends, collaborative networks, and thematic developments throughout the timeframe of the study. Data processing through VOSviewer enabled co-occurrence analysis across multiple parameters, including author's keywords, countries where studies performed, and trends on development of subject matter. This approach provided an insightful overview of previous research patterns and accentuated emerging trends in this field. Through the number of publications per year, it is clearly visible the increase in awareness and research in the field of effects of social media use on youth from 2015 to 2025, with numbers extending from 5 articles each in 2015 and 2016 to 34 in 2023, 43 in 2024 and currently 29 (in August 2025) increasing significantly.
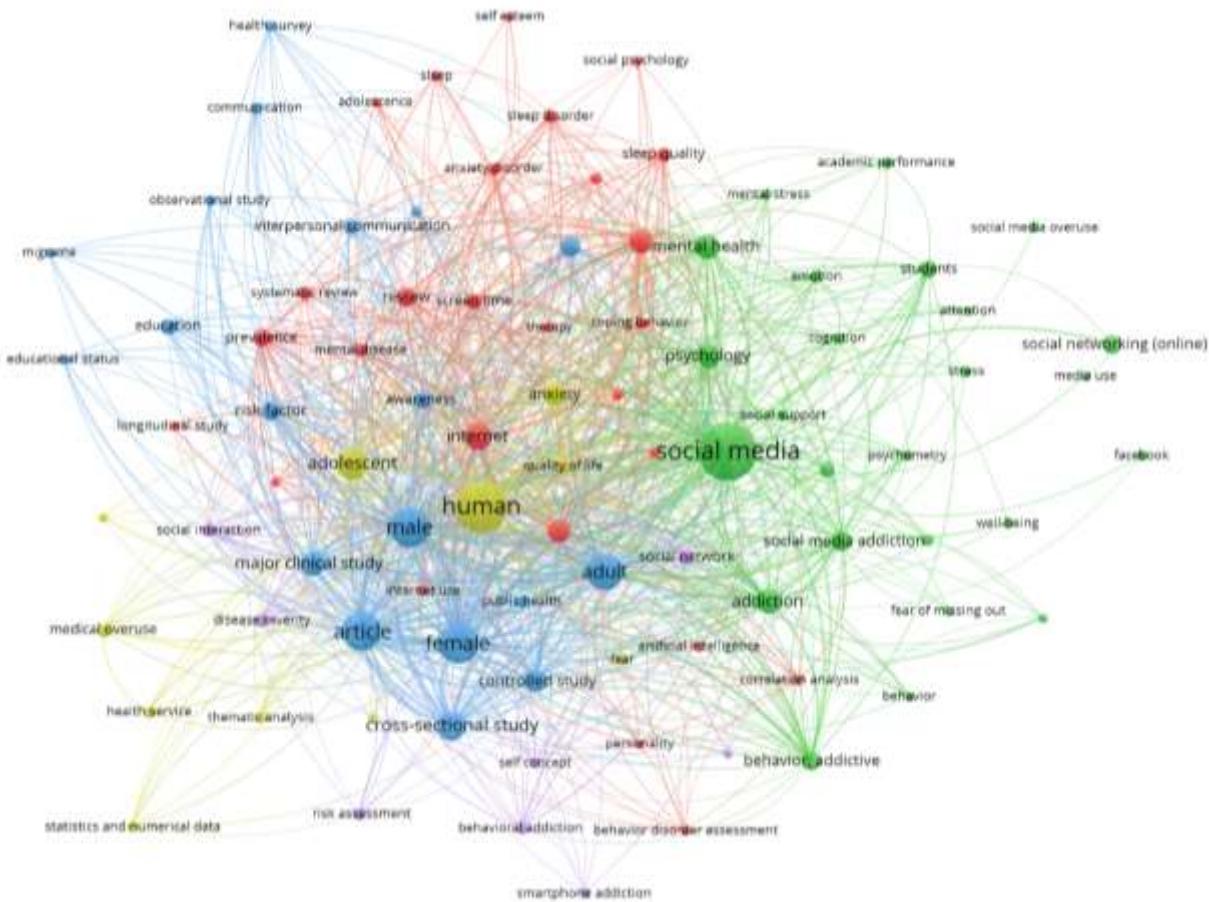
FIGURE 2 VOSviewer: Co-occurrence network based on author's keywords

Co-occurrence network based on author's keywords:

In the result of co-occurrence of the author's keyword network map (Figure 2), a total of 5 clusters emerged. The red cluster focuses on psychological impact related terms, green depicts addiction and behavioural change, blue denotes health and methodological context, yellow indicates the key demographic in studies, i.e, adolescents concerning quality of life, scoring system and health, while the purple cluster presents impacts keywords associated with pandemic. Social media emerged as a central node of all the clusters connecting numerous psychological and behavioural effects caused due to overuse of social media, especially among youth. This keyword is intertwined with factors such as youth, addiction, mental health, anxiety disorder, social networking, emotional stress and academic performance. The Adolescent (blue-green bridge) links youth with addiction and mental health. This implies how overuse social media usage can negatively impact youth's mental and emotional health, leading to issues such as depression, anxiety, addiction. Studies on social media overuse and addiction exhibits its correlation with reduced academic performance.
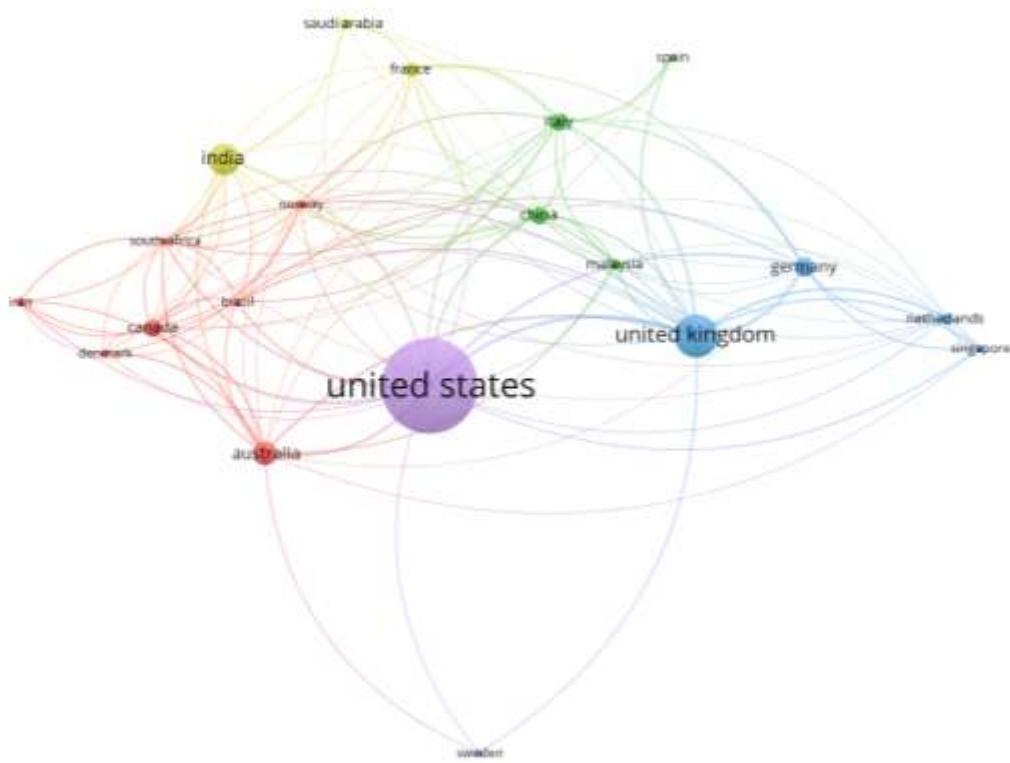
FIGURE 3 VOSviewer: Network based on countries of research studies

Network based on countries of research studies:
The country co-occurrence map shows that the United States and the United Kingdom are the dominant contributors of research on social media and mental health, with strong collaborations across Europe and Asia. Emerging contributions from India, China, and Malaysia highlight growing research interest in non-Western contexts. However, limited representation from Africa and South America indicates a geographic imbalance, suggesting the need for more diverse global perspectives.

Thematic Development:
The keyword co-occurrence map highlights social media as a central theme which is closely linked to behavioural change related concepts such as internet addiction, social interaction, behavioural addiction and scoring system. These keywords are closely associated with academic performance and mental health. Another concept linked with social media is psychological outcomes including anxiety, stress, self concept, and loneliness which bridges its association with depression and mental illness. It also connects with emotional stress, therapy, sleep disorder, cyberbullying and smoking revealing its association with various risk factors caused due to overuse of social media and harmful for youth. One close interrelation visible is between the use of social media and pandemic aligning keywords like overuse, personal communication, mental stress, mental disease and social status. This highlights the increased use of media platforms during COVID-19 pandemic leading to various issues such as mental disease and stress. This also established a link between use of social media and social status. An association with positive outcomes of use of social media is with interpersonal communication, social support and wellbeing leading to building strong social networks. Distinct clusters revealed evolving trends in this field of the study. Earlier research (blue and green cluster) emphasised internet overuse, screentime, sleep disorder, behavioural changes and risk factors. Mid studies (yellow and red clusters) focused on psychological health among youth and adolescents spotlighting anxiety, mental stress, loneliness, and depression further leading to weak academic performance. This also projected increased social media interaction through multiple platforms such as Facebook, Twitter, WhatsApp, etc.. The recent studies (purple cluster) are focused on the impact of social media usage, particularly during the COVID-19 pandemic, emphasizing increased dependence on social media among youth for communication, interaction, and support. Excessive social media use can increase feelings of loneliness, anxiety, and stress while reducing real-life social interaction capabilities (Khang et al., 2025). This implied less physical interaction of youth with their family.

Major findings from results:

1.	Excessive social media usage significantly impacts mental health, emotional well-being, and self-perception. The significance of their developmental phases renders teenagers and young people progressively vulnerable to the harmful consequences of digital overstimulation.
2.	Research underlines the harmful or detrimental consequences of digital overstimulation on behavioural patterns such as social interaction, memory, and decision-making.
3.	Compulsive social media use can result in negative consequences like disturbed sleep and fatigue, which can ultimately cause a decline in academic performance.
4.	Overstimulation and media burnout, links with emotional exhaustion and can cause withdrawal behaviour among users.
5.	Research evolved from focusing on broad issues like sleep disorder, fatigue, procrastination, and addiction to psychological and behavioural outcomes like mental illness, anxiety disorder, emotional stress, multitasking, attention deficit, social interaction and academic performance.

DISCUSSION

The review sought to understand the psychological and behavioural effects of excessive social media use among youth, as well as to trace the evolution of research and emerging concerns in this domain.

Interpretation of Findings:
Across all the studies reviewed, a common pattern emerged. Youth using social media compulsively often report higher levels of anxiety, stress, attention deficit, emotional exhaustion and diminished performance. This resonates with research emphasizing young adults's vulnerability during this critical stage of development, when identity and self-concept are fragile. Some studies assessed the effect of potential mediating and moderating factors such as age, gender, individual traits, involvement of parents, and socio-cultural context, compounded with social media overuse, can also influence the effects in an individual (Keles, 2020) and (Khalaf, 2023). Together with this, it is also important to consider the sociodemographic variables and history of psychopathology as factors that play a role in problematic social media use, as media addiction is not limited to youth alone. This may decipher a new perspective towards the issue. Text analysis indicates that internet addiction behaviours correlate with cognitive decline, particularly in memory, attention span, and problem-solving ability, underscoring the effects of excessive digital usage on cognitive function (Yousef et al., 2025). This suggests that excessive exposure on social media, positions students under psychological strain, which in turn affects their academic performance. A possible explanation for this is that constant distractions reduce concentration, making it harder for students to focus and absorb the knowledge essential for achieving good grades (Singh et al., 2023).
Another interesting finding was how research has shifted over time. Earlier work focused mostly on issues like sleep disruption, procrastination, or general "addiction." In contrast, most recent studies have started digging deeper into psychological outcomes such as fear of missing out, stress, and emotional exhaustion, as well as social behaviours like multitasking, reduced attention span and strained social interactions. This suggests that the research field itself has matured, moving from simply describing the problem to examining its deeper psychological and social impacts. However, many of the existing studies still limit themselves at identifying correlations rather than exploring basal mechanisms. For instance, while we know that fear of missing out is linked to stress, fewer studies examine how platform design features such as endless scrolling, algorithmic nudges, like-comment features or notification systems intensify these experiences. In the same way, most studies focus on negative effects, leaving questions open about potential coping strategies, protective factors, or the possibility of balanced and mindful social media use, which could be beneficial for considering resilience, prevention, and healthier engagement models.

Emerging Concerns:
Our findings also point to several emerging concerns. Phenomena such as media burnout and emotional exhaustion have gained prominence, signaling the risk of withdrawal behaviours and disengagement from offline social life. Additionally, compulsive usage patterns raise alarms about long-term implications for self-control and coping strategies in youth. This together indicates that the quality and compulsiveness of engagement on social media is also a factor that shapes well-being and behaviour.
Another emerging issue is influencer culture, which has been found to increase self-comparison and dissatisfaction among youngsters. Constant exposure to curated stylized lifestyles and idealized physical appearances hones unrealistic benchmarks of success and beauty. Not only does this increase feelings of inadequacy but may also potentially promote materialistic ideals and seeking approval. Along with this, the popularity of short-form video applications and trends such as "viral challenge" or "aesthetic" subcultures further contribute to performance anxiety and constant seeking of approval, also increasingly blurring online identities with offline realities. Most teenagers and adult users admit to a pressure of presenting an idealized version of themselves online, that can also strain their

authenticity and self-value. This shift suggests that rising threats of social media usage are no longer limited to time spent online on it but also extend to how digital spaces shape identity construction and social comparison.

Finally, while most of the earlier research documented individual harms, newer patterns indicate that these concerns have collective dimensions like affecting peer relationships, learning environments, and even broader cultural norms. For instance, FoMO-driven behaviours or "always-on" communication styles reshape how young people connect and disengage from their social worlds.

Limitations of Study

This study has a few limitations that should be acknowledged. First, the studies selected are limited to certain databases which may reduce the generalizability of the research study. This may also introduce publication bias and exclude relevant findings from studies published in other databases. Second, much of the existing work originates from Western or metropolitan contexts, which can constrain the understanding of the impacts of social media usage across various cultures, socioeconomic backgrounds, and rural environments. Third, while the review identifies a broad pattern it does not include a meta-analysis. Hence, it cannot quantify the strength of associations between social media overuse and psychological/behavioural outcomes.

CONCLUSION

This review summarizes the widespread psychological and behavioural effects associated with high levels of social media use among adolescents, including stress, anxiety, emotional burnout, sleep problems, reduced attention spans, and decline in academic performance. In recent years, research in this area has evolved beyond recognizing overall issues such as burnout and addiction to explore deeper psychological effects and new phenomena such as fear of missing out, media burnout, and withdrawal behaviours. Recent trends such as self-comparison, influencer culture, and pressures from abbreviated video platforms indicate a development of concerns that move beyond a mere length of online usage and its quality of engagement but also affects self-conception and interpersonal interaction.

Although these findings enhance our understanding of the intricate impacts of social media, significant gaps still exist. There are less longitudinal studies in current literature, which constrains the ability to draw conclusions regarding long-term effects. Additionally, research is predominantly focused on Western and urban context, thereby excluding a range of cultural, rural and socioeconomic perspectives. Future research studies should adopt longitudinal and cross-cultural methodologies to better understand how compulsive social media usage influences youth throughout various developmental phases and into adulthood. Furthermore, there has been insufficient emphasis on protective factors such as familial support, peer relationships, or digital literacy, that may assist young individuals in interacting with social media in healthier ways. Investigating these aspects, together with the influence of design features on platforms that contribute to compulsive usage, could advance the discipline from merely documenting negative outcomes to formulating effective and sustainable solutions.

Altogether, social media overuse goes beyond the simple accounting of the time spent online; it includes the frequency, the urge, and the circumstantial aspects related to such use. Reducing its related risks requires not only academic research but also the application of effective strategies in the educational networks, policy procedures, and platform governing. With the combination of in-depth research and proactive interventions, we can better safeguard the mental health and general wellbeing of young people growing up in a rapidly changing digital world.

REFERENCES

1. Suldo, S. M., Thalji-Raitano, A., Kiefer, S. M., & Ferron, J. M. (2016). Conceptualizing high school students' mental health through a dual-factor model. *School Psychology Review, 45*(4), 434–457. https://doi.org/10.17105/SPR45-4.434-457

2. Montag, C., & Walla, P. (2016). Carpe diem instead of losing your social mind: Beyond digital addiction and why we all suffer from digital overuse. *Cogent Psychology, 3*(1), 1157281. https://doi.org/10.1080/23311908.2016.1157281

3. Han, B. (2018). Social media burnout: Definition, measurement instrument, and why we care. *Journal of Computer Information Systems, 58*(2), 122–130. https://doi.org/10.1080/08874417.2016.1208064

4. Segijn, C. M., Xiong, S., & Duff, B. R. L. (2019). Manipulating and measuring media multitasking: Implications of previous research and guidelines for future research. *Communication Methods and Measures, 13*(2), 83–101. https://doi.org/10.1080/19312458.2018.1555797

5. 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. https://doi.org/10.1080/02673843.2019.1590851

6. Li, J., Qi, J., Wu, L., Shi, N., Li, X., Zhang, Y., & Zheng, Y. (2021). The continued use of social commerce platforms and psychological anxiety: The roles of influencers, informational incentives, and FoMO. *International Journal of Environmental Research and Public Health, 18*, 12254. https://doi.org/10.3390/ijerph182212254

7. Hartanto, A., Quek, F. Y. X., Tng, G. Y. Q., & Yong, J. C. (2021). Does social media use increase depressive symptoms? A reverse causation perspective. *Frontiers in Psychiatry, 12*, 641934. https://doi.org/10.3389/fpsyt.2021.641934

8. Kwok, C., Leung, P. Y., Poon, K. Y., & Fung, X. C. (2021). The effects of internet gaming and social media use on physical activity, sleep, quality of life, and academic performance among university students in Hong Kong: A preliminary study. *Asian Journal of Social Health and Behavior, 4*, 36–44.

9. Beyari, H. (2023). The relationship between social media and the increase in mental health problems. *International Journal of Environmental Research and Public Health, 20*, 2383. https://doi.org/10.3390/ijerph20032383

10. Khalaf, A. M., Alubied, A. A., Khalaf, A. M., et al. (2023). The impact of social media on the mental health of adolescents and young adults: A systematic review. *Cureus, 15*(8), e42990. https://doi.org/10.7759/cureus.42990

11. García-Ortiz, C., Lorenzo González, M., Fernández-Sánchez, J., Solano-Lizcano, V., Del Coso, J., & Collado-Mateo, D. (2025). Recommendations for physical exercise as a strategy to reduce problematic use of the internet and digital devices: A perspective. *International Journal of Environmental Research and Public Health, 22*, 753. https://doi.org/10.3390/ijerph22050753

12. Lee, A. R., Son, S.-M., & Kim, K. K. (2016). Information and communication technology overload and social networking service fatigue: A stress perspective. *Computers in Human Behavior, 55*(Part A), 51–61.

13. Author(s). (2016). *Title of the article*. Annual Review of Psychology, 67, 315–338. https://doi.org/10.1146/annurev-psych-122414-033608

14. Zhang, S., Zhao, L., Lu, Y., & Yang, J. (2016). Do you get tired of socializing? An empirical explanation of discontinuous usage behaviour in social network services. *Information & Management, 53*(7), 904–914. https://doi.org/10.1016/j.im.2016.03.006

15. Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study. *Preventive Medicine Reports, 12*, 271–283. https://doi.org/10.1016/j.pmedr.2018.10.003

16. Naslund, J. A., Bondre, A., Torous, J., & Aschbrenner, K. A. (2020). Social media and mental health: Benefits, risks, and opportunities for research and practice. *Journal of Technology in Behavioral Science, 5*(3), 245–257. https://doi.org/10.1007/s41347-020-00134-x

17. Sharma, M. K., John, N., & Sahu, M. (2020). Influence of social media on mental health: A systematic review. *Current Opinion in Psychiatry, 33*(5), 467–475. https://doi.org/10.1097/YCO.0000000000000631

18. Pa, W., Mahmud, M. S., & Zainal, M. (2021). Implications of social media addiction on academic performance among Generation Z student-athletes during COVID-19 lockdown. *International Journal of Learning, Teaching and Educational Research, 20*, 194–209. https://doi.org/10.26803/ijlter.20.8.12

19. Liu, H., Liu, W., Yoganathan, V., & Osburg, V. S. (2021). COVID-19 information overload and Generation Z's social media discontinuance intention during the pandemic lockdown. *Technological Forecasting and Social Change, 166*, 120600. https://doi.org/10.1016/j.techfore.2021.120600

20. Mohammed, N., Siddique, A.-S., Owusu-Oware, E., Koi-Akrofi, G., & Tanye, H. (2022). Measuring the effect of social media on student academic performance using a social media influence factor model. *Education and Information Technologies, 28*. https://doi.org/10.1007/s10639-022-11196-0

21. Apoorva, A., Chaudhuri, R., Hussain, Z., & Chatterjee, S. (2022). Social media usage and its impact on users' mental health: A longitudinal study and inputs to policymakers. *International Journal of Law and Management, 64*(5), 441–465. https://doi.org/10.1108/IJLMA-08-2022-0179

22. Singh, S., Gupta, P., Singh, S., & Mahajan, A. (2023). Correlates of compulsive use of social media and academic performance decrement: A stress-strain-outcome approach. *Journal of Content, Community and Communication, 17*, 131–146. https://doi.org/10.31620/JCCC.06.23/10

23. Fresku, E., Kraja, J., Abazaj, E., Koja, G., Sulejmani, Z., Shundi, L., & Ali, E. (2025). Measurement of social media use and their impact on health and well-being and academic performance: A cross-sectional study among Shkodra University students. *International Journal of Ecosystems and Ecology Science, 15*, 263–274. https://doi.org/10.31407/ijees15.130

24. Page, M. J., et al. (2021). PRISMA 2020 explanation and elaboration: Updated guidance and exemplars for reporting systematic reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71

25. Yousef, A. M. F., Alshamy, A., Tlili, A., & Metwally, A. H. S. (2025). Demystifying the new dilemma of brain rot in the digital era: A review. *Brain Sciences, 15*(3), 283. https://doi.org/10.3390/brainsci15030283

26. Choi, E., Carleton, E., Walsh, M., & Hancock, A. (2025). Mindfulness buffers the negative effects of social media overuse on work effort through state self-control during crisis: A daily diary study. *Behaviour & Information Technology, 44*(13), 3115–3132. https://doi.org/10.1080/0144929X.2024.2433031

Open Access

27. Wei, T., Xing, X.-L., Liu, J.-J., Gan, Y., Gong, X., Zhang, X.-F., et al. (2025). The effect of social suspicion on social media addiction among Chinese college students: A moderated mediation model. *PLoS ONE, 20*(5), e0323474. https://doi.org/10.1371/journal.pone.0323474

28. Diefenbach, S., & Christoforakos, L. (2017). The selfie paradox: Nobody seems to like them yet everyone has reasons to take them. An exploration of psychological functions of selfies in self-presentation. *Frontiers in Psychology, 8*, 7. https://doi.org/10.3389/fpsyg.2017.00007

29. Lee, H. Y., Beevers, C. G., Jamieson, J. P., Reis, H. T., Josephs, R. A., O'Brien, J. M., Mullarkey, M. C., & Yeager, D. S. (2020). Getting fewer "likes" than others on social media elicits emotional distress among victimized adolescents. *Child Development, 91*(6), 2141–2159. https://doi.org/10.1111/cdev.13415

30. Qaisar, S., Chu, J., Shah, Z., & Hassan, Z. (2022). Effects of social networking site overloads on discontinuous intentions of users: A moderated mediation analysis. *Behaviour & Information Technology, 41*(16), 3530–3551. https://doi.org/10.1080/0144929X.2021.2002411

31. Mehmood, K., Suhail, A., Kautish, P., Hakeem, M. M., & Rashid, M. (2024). Turning lemons into lemonade: Social support as a moderator of the relationship between technostress and quality of life among university students. *Psychology Research and Behavior Management, 17*, 989–1006. https://doi.org/10.2147/PRBM.S448989