



## THE IMPACT OF SOCIAL MEDIA USE ON STUDENTS' BEHAVIORAL HEALTH AND ACADEMIC OUTCOMES: A NARRATIVE REVIEW (2016–2024)

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### Abstract

*Social media has become an ubiquitous part of the lives of students, which affects both behavioral health and academic performance. Although these platforms open up possibilities of communication, collaboration and access to educational resources, there is growing evidence regarding their multifaceted and sometimes contradictory impacts. This paper includes a narrative literature review that summarizes peer-reviewed articles published in the last four years (2016-2024) to explore the effects of social media on students. A search of major academic databases was organized, and studies that met the predefined inclusion criteria were selected based on the following aspects: student populations, use of social media, and related psychological and academic outcomes. The results show that uncontrolled and excessive use of social media is always linked to negative behavioral health effects, such as anxiety, depression, sleeping problems, and emotional control. Such effects have been associated with processes like social comparison, fear of missing out, and compulsive patterns of engagement. Meanwhile, excessive use is linked to decreased academic concentration, procrastination, and poorer academic achievement. Nevertheless, the review also reports possible advantages of the intentional and controlled use of social media, such as improved collaboration, access to learning materials, and peer support. All in all, the evidence indicates that the effects of social media are not necessarily positive or negative but are influenced by the patterns of usage, personal traits, and situational factors. The paper highlights the importance of moderate online use and specific interventions to promote student health and achievement.*

**Keywords:** Social Media Use, Students, Behavioral Health, Academic Outcomes, Learning Performance, Digital Behavior, Self-Regulation, Mental Wellbeing, Comprehensive Review

### 1. Introduction

The use of social media has become a key aspect of modern student life, and such apps as Instagram, TikTok, Snapchat, YouTube, and WhatsApp influence the way students communicate, interact, and get access to information. Such platforms offer opportunities of communication, cooperation, entertainment, and access to educational resources. Meanwhile, there is an increasing body of evidence that overuse or unhealthy use of social media can have negative implications on the behavioral health and academic outcomes of students. This review summarizes studies published in 2016-2024 to assess the complex effects of the use of social media on the behavioral health and academic performance of students, as well as the possible benefits in the case of the purposeful and moderate use of these platforms.

The use of social media has changed communication patterns among contemporary students greatly as it has become part of their everyday life and academic setting (Hussain and Shahid, 2024). Instagram, TikTok, Facebook, WhatsApp, and YouTube are some of the platforms used to interact with peers, consume entertainment, and collaborate academically (Azad, 2023). Their prevalence is the result of their contribution to social connection as well as the information seeking, identity development, and informal learning processes (Favini et al., 2024).

Recent studies have shown that students spend a significant amount of time on social media every day, and the trends differ based on demographic and contextual variables, including age,

gender, level of education, and culture (Shahzad et al., 2024). The greater access to mobile technologies, as well as the algorithm-driven content curation, has further enhanced the frequency and length of engagement (Zhang et al., 2024).

Social media use and student well-being are a multidimensional relationship. Although social media can facilitate peer communication, access to information, and academic activity, it can also lead to cyberbullying, social comparison, and compulsive consumption habits that interfere with sleep, focus, and academic achievement. In this respect, this review analyzes 33 chosen studies to better understand the role of usage patterns, underlying mechanisms, and individual differences on psychological well-being and academic functioning of students.

### **1.2 Theoretical Perspectives**

To comprehend the impact of social media on students, it is necessary to apply the appropriate theoretical perspectives. Social Comparison Theory is the theory that suggests that people compare themselves with others in terms of their lives, looks, or success; on social media, this can be magnified by highly curated and idealized content (Alam, 2024). According to Uses and Gratifications Theory, people are active participants in media consumption to fulfill their needs that include belonging, self-presentation, entertainment, and information seeking (Alam, 2024). Moreover, the concept of fear of missing out (FoMO) has become a significant topic in recent studies that can be defined as the feeling of anxiety that other people might be enjoying rewarding experiences that one is not a part of. Collectively, these attitudes can be used to understand why students can still be much involved with social media even as they become increasingly aware of its potential psychological and academic expenses.

### **1.3 Problem Statement**

The use of social media by students over long periods of time is unprecedented, but the impact of social media on both behavioral health and academic achievement has not been fully comprehended. Literature on the topic indicates that excessive use of social media is associated with mental health issues, including anxiety, depression, and sleep disruption; nevertheless, the evidence is not consistent on the mechanisms underlying these changes, moderating variables, and long-term consequences (Ahmed et al., 2024).

In addition, most studies focus on behavioral health and academic outcomes independently, limiting a more comprehensive approach of how the two interrelate to influence student development and academic achievement. This discontinuity prevents educators, researchers and policymakers to create balanced, evidence-based reactions to the social media use of students.

### **1.4 Need for the Study**

Specific review of recent literature is required to fill in major gaps in existing knowledge. To begin with, social media platforms and the activities of users change quickly, so the previous results might not completely represent current usage trends and experiences (Zhang et al., 2024). Second, the representation of various global contexts, especially in the developing world, is limited, with access patterns, digital infrastructure, and cultural aspects being different.

Third, it is necessary to pay more attention to the processes according to which social media affects behavioral health and academic outcomes, including psychological and behavioral processes. Lastly, the presence of protective factors, including self-regulation and purposeful use, can be recognized to facilitate a more balanced perspective that would go beyond risk-centered narratives and inform constructive and evidence-based interventions.

### **1.5 Aim of the Study**

The aim of this review is to synthesize peer-reviewed literature published between 2016 and 2024 to examine the effects of social media use on students' behavioral health and academic outcomes across different educational levels and contexts.

### 1.6 Objectives of the Study

1. To examine patterns of social media use among students, including frequency, duration, platforms, and purposes of engagement.
2. To identify and synthesize the effects of social media use on behavioral health, including anxiety, depression, stress, sleep, and self-esteem.
3. To assess the relationship between social media use and academic outcomes, including performance, engagement, and concentration.
4. To identify moderating factors that influence the direction and magnitude of these effects.
5. To highlight research gaps and propose directions for future research.

### 1.7 Research Questions

1. How does social media use affect students' behavioral health across psychological and physiological dimensions?
2. What relationships exist between social media use and students' academic outcomes?
3. What individual, contextual, and platform-specific factors moderate these effects?
4. What key gaps remain in the literature, and what future research is needed?

### 1.8 Significance of the Study

This review is important to various stakeholders. To students, it will give an idea of how social media use patterns can affect well-being and academic performance. To parents and guardians it provides a more direct view of risks and possible benefits. To teachers, it guides the digital citizenship education and classroom practices. In the case of institutional leaders, it helps them to draw balanced policies and student support strategies. To mental health professionals, it points out pertinent risk factors and behavioral patterns. Lastly, to researchers, it can pinpoint gaps in existing knowledge and assist in future investigations.

In general, the research adds to a more balanced, evidence-based picture of social media use in favor of strategies that would maximize the benefits and minimize the possible harms of social media use.

## 2. Methodology

### 2.1 Review Design

The research design of this study is a narrative literature review whereby it is proposed to synthesize the available research on the effects of social media use on both the behavioral health and academic performance of students. The narrative approach was chosen due to the fact that the literature available is highly diverse in regards to study design, population features, measurement instruments, and reported findings. This will enable the incorporation of the results of various empirical studies and conservation of contextual differences and more general thematic trends throughout the literature.

### 2.2 Search Strategy

The literature search was done in systematic databases of the main academic databases: Scopus, Web of Science, ERIC, PubMed, and ScienceDirect. The search was limited to peer-reviewed articles published in 2016-2024, which meant not only the relevance of the search but also the presence of the basic recent research.

Key concepts were used to develop search terms based on the related social media, student populations, and outcome variables. These consisted of combinations of:

- social media OR social networking.
- students or adolescents or university students
- “mental health” OR “behavioral health”
- academic performance OR learning outcomes

Boolean operators (AND/OR) were used to systematically combine these terms in order to retrieve relevant studies.

### 2.3 Inclusion Criteria

The studies that were included in the review were those that satisfied the following criteria:

1. Targeted at the student populations (school, college, or university level)
2. Studied social media use as a main or main variable.
3. Behavioral health (e.g., anxiety, depression, sleep, stress) or/and academic performance outcomes reported.
4. Were published in peer-reviewed journals
5. Were published between 2016 and 2024
6. Full text and in English were available.

### 2.4 Exclusion Criteria

The exclusion criteria were that the studies had to:

1. Concentrated on general use of the internet or screen time with no mention of social media.
2. Were non-peer-reviewed sources (e.g., opinion articles, editorials, blog posts)
3. Not responding to both behavioral health and academic outcomes.
4. Were there any duplicate records found in databases?
5. Did not have enough methodological clarity or empirical evidence.

### 2.5 Study Selection Process

The preliminary search was successful and identified a wide range of pertinent literature in the chosen databases. Abstracts and titles were filtered to determine relevance to the study objectives. Duplicates were eliminated and the rest of the studies were screened according to the inclusion and exclusion criterion.

After this screening process, a final body of literature was obtained, which includes 33 studies which were selected to be analyzed in detail. All these studies are included in the evidence base of this review and represent a wide diversity of methodological strategies, geographical setting, and student groups.

### 2.6 Data Extraction

Each of the selected studies was systematically extracted to obtain data. The information extracted was:

- Publication information (author, year)
- Study design and methodology
- Population and sample characteristics.

Type and pattern of social media use.

- Behavioral health outcomes (e.g., anxiety, depression, sleep quality)
- Academic performance (e.g., performance, engagement, focus)
- Important findings and conclusions.

Particular focus was placed on finding common variables like time of use, the reason of engagement, the type of platform, and moderators.

### 2.7 Data Synthesis and Analysis.

A thematic synthesis approach was used to analyze and integrate findings across studies. The chosen literature was presented in major thematic sections, such as:

- patterns of social media use.
  - mental health impacts
  - academic performance outcomes
  - mediating and moderating factors.
- intervention and coping strategies.

This methodology enabled comparison between studies and enabled detection of common patterns, contradictions and gaps in the literature.

### 2.8 Review Limitations.

There are a number of limitations to this review. To begin with, included studies differ in their methodology, sample size, and measurement tools, making them less comparable. Second, the review is based mostly on cross-sectional studies, which limits the causal interpretation. Third, only English-language articles that were peer reviewed were incorporated and this could have left out other sources of relevant research. Lastly, being a narrative review, the study lacks any statistical aggregation of findings and results should be understood as thematic, not definite.

### **2.9 Ethical Considerations**

This research is founded on the earlier published works and there is no primary data gathering. Thus, there was no need to obtain formal ethical approval. All the references are cited in the proper way as per the academic norms.

## **3. Literature Review**

### **3.1 Patterns of Social Media Use Among Students**

Modern students actively use various social media platforms that have become a common aspect of life (Hussain & Shahid, 2024). The most common type of research differentiates active use (e.g., creating content, communicating with others, and engaging in meaningful interaction) and passive use (e.g., scrolling and viewing without interaction). It is continuously indicated that passive use is better coupled with negative effects, especially concerning psychological well-being (Ahmed et al., 2024).

Although there are fears over adverse effects, social media has significant advantages as well. It can help connect with peers, alleviate a sense of loneliness, and access informal support networks, especially among socially isolated or geographically remote students (Favini et al., 2024). Such platforms may be used as identity exploration and expression areas, particularly when people feel inhibited in real-life situations. Moreover, the students often utilize social media to get information on mental health and coping tips, which can help decrease stigma and raise awareness (Shahzad et al., 2024).

Socially, social media facilitates the access to educational materials like lectures, learning materials, and discussion of academic topics. It is also conducive to peer learning in the form of collaborative communities where students exchange resources and have an academic conversation (Zhang et al., 2024). These online learning platforms can promote motivation as students feel socially connected and acknowledged (Shahzad et al., 2024).

### **3.2. Mental Health Impacts: Depression, Anxiety, and Psychological Distress**

#### **3.2.1 Prevalence and Severity of Depression and Anxiety**

The social media has been associated with depression and anxiety, which are among the best studied consequences of its use. A meta-analysis of the problematic use of social media in children and adolescents (5-18 years) revealed problematic use to be strongly linked to depressive and anxiety symptoms, with the duration of use demonstrating greater correlations in girls than boys (Saleem et al., 2024). The study has shown alarming prevalence levels of various studies and anxiety and depression symptoms are highly prevalent among student groups. The highest results are observed among medical students, where social media addiction is found in the range of 38 per cent of pharmacy students who are at risk of addiction and only 8.4 per cent of students have little to no depression (Shanshal et al., 2024).

One of the recurring themes of the literature is that excessive use of social media is linked to adverse behavioral health outcomes. Constant connectivity, constant notifications, and fear of missing out (FoMO) are often associated with anxiety and promote the development of compulsive checking habits. There is also a contribution to social comparison processes, especially exposure to idealized content, which leads to more anxiety and depressive symptoms (Hussain and Shahid, 2024). Problematic social media use is also linked with depression which is frequently mediated by upward social comparison and perceived inadequacy. These mind

processes reveal that the effects of social media is not only a time based outcome but also a social construct of how people perceive and interact with the contents of the internet.

Inconsistencies of gender disparities appear throughout the studies. Women students have always had a higher score on anxiety and depression than men and 40 percent of female students had high levels of anxiety in comparison to 30 percent of male students (Ashshawareb et al., 2024). This gender disparity could be explained by the fact that they have stronger social comparison biases and are more susceptible to cyberbullying and pressure associated with appearance on image-oriented platforms. Research on college students revealed that emotional dysregulation mediates the connection between victimization on social media and depressive and anxiety symptoms, and social support is a protecting factor.

### **3.2.2 Mechanisms: Emotional Investment and Psychological Pathways**

Recent studies have established that the emotional investment in social media is an important predictor of mental health outcomes. The highest quartile of emotional investment students scored much higher in terms of anxiety and depression than the lowest quartile. These results highlight the significance of psychological investment in social media platforms, as opposed to time spent on these platforms, in determining mental health outcomes. It is emerging that the patterns of engagement and not the duration alone are critical determinants of outcomes. Emotional investment, compulsive use and loss of self regulation seem to increase the correlation between social media use and negative mental health outcomes. These results suggest that psychological engagement on social media sites can make a more effective predictor of distress compared to mere exposure. Online harassment and cyberbullying are other risk factors, which lead to anxiety, emotional distress, and lowered well-being. Likewise, the problem of body image issues, especially among female students, is aggravated by the appearance-driven content and the use of filtered images (Hussain and Shahid, 2024).

The psychological mechanism connecting social media use to mental health issues is multi-mechanism. The obsessive nature of network, inability to control oneself, and overuse of social media has been shown to have strong correlations with depression and anxiety (Qin et al., 2023). This pathway is enhanced by psychological maltreatment in families, and family dynamics and emotional abilities determine the effects of social media on mental health (Qin et al., 2023). The discovery highlights the role of contextual influences in predisposing to the adverse impacts of social media.

### **3.2.3 Specific Mental Health Challenges: FOMO, Cyberbullying, and Social Isolation**

Victimization by cyberbullying via social media is a significant predictor of depression and anxiety symptoms among college students. This relationship is partially mediated by emotion dysregulation, implying that people who have difficulties in managing negative emotions in reaction to cyberattacks have worsened mental health symptoms. Social comparison opportunities coupled with exposure to cyberbullying exert specific susceptibility on adolescents and young adults who have to navigate social media spaces.

Another crucial issue is social isolation. Students of secondary schools report a feeling of isolation and mental disorientation following use of social media, and 77.2% of them have sleep disturbances and 72.9% have a sense of mental disorientation following use (Mahdi and Pediatric, 2024). These trends indicate that, although social media offers to connect people, the long-term use of this tool has a counterproductive effect, causing loneliness and mental health problems.

### **3.2.4 COVID-19 Pandemic Effects on Social Media and Mental Health**

COVID-19 heightened the worry regarding the effects of social media on mental health. A longitudinal cohort of university students who were compared between pre-pandemic and peak-pandemic periods discovered that severe depression, anxiety, and stress symptoms were significantly increased during the pandemic (Višnjić et al., 2023). Interestingly, the six items

of social media addiction as assessed by the Bergen Social Media Addiction Scale (BSMAS) were all significantly higher, and all of them were positively related to the depression, anxiety, and stress symptoms (all  $p < 0.01$ ) (Višnjić et al., 2023).

Even though the aim of social media is to make people more connected, there is a risk of feeling isolated and experiencing psychological discomfort after uncontrolled and long use of social media. Certain research has found that students report mental exhaustion and a decrease in well-being after prolonged use, which is a paradox because it does not mean that the more students engage digitally, the more they connect on a meaningful level.

Pandemic participants reported high percentages of increased stress and anxiety, health issues, problems with concentration, sleep disturbances, and academic performance anxiety (Oxendine et al., 2024). This mental health crisis concentration underscores the role of social media activity in times of societal-wide crisis in exacerbating its negative psychological impact on students.

### **3.3. Sleep Quality, Circadian Disruption, and Physical Health Consequences**

#### **3.3.1 Social Media Use and Sleep Disturbance**

Sleep is one of the most uniform negative consequences of using social media, and 77.2% of secondary school students claim to have sleeping issues related to the use of social media (Mahdi and Pediatric, 2024). In a cross-sectional study of Saudi Arabian students in secondary schools, the use of TikTok, social media hours spent, and moderate-to-severe depressive symptoms were identified as significant independent predictors of poor sleep (Al-Garni et al., 2024). The scores of the Pittsburgh Sleep Quality Index show that 34.7% of students are poor sleepers, and the quality of sleep is negatively correlated with the patterns of social media use (Al-Garni et al., 2024). One of the most regularly reported effects of overuse of social media is sleep disturbance. There are a number of mechanisms that cause this, such as exposure to blue light, cognitive stimulation before bed, notifications at late time, and sleep crowding out by excessive screen time (Ahmed et al., 2024). Poor sleep quality is linked to diminished attention, poor mood control, and poor academic performance (Favini et al., 2024).

It has also been found that compulsive checking behaviors and FoMO also play a role in the disrupted sleep patterns, especially when social media is accessed in the late hours of the night. Social media use and sleep behaviors have a joint mediating effect on the correlation between FoMO and problematic sleep. Such relationships change with age, and there is some evidence that there is an age-related difference in susceptibility to sleep disruption. The study indicates that psychological well-being is the determinant of compulsive use of social media, which subsequently affects the relationships between social media use and sleep by interfering with sleep hygiene behaviors.

#### **3.3.2 Nighttime Media Use and Sleep Architecture**

A recent study in the COVID-19 pandemic investigated college students and discovered that sleep disturbance was significantly correlated with increased recreational use of digital media before bedtime, increased playing games, and increased use of social media after bedtime. Social isolation, poor physical health and mental health globally and poor academic performance were significantly related to sleep disturbance. Nomophobia (no-mobile-phone phobia) which is the feeling of anxiety and fear of not having their mobile device plays a major role in sleeping difficulties. The systematic review of articles revealed that the effects of excessive use of mobile devices are anxiety, stress, nervousness, and sleep disorders, and that these symptoms adversely affect academic performance (Medrano-Sánchez et al., 2024). The review found that the necessity to maintain connectedness and the fear of missing social media information are the key contributors to the development of nomophobia, which forms a cyclic pattern of checking social media at night that disrupts sleep architecture (Medrano-Sánchez et al., 2024). Social media use prior to sleep is closely linked to sleep disturbance and poor sleep

quality. Constant activity, especially at night, disturbs sleeping habits and leads to fatigue, lack of concentration and low academic productivity.

### **3.3.3 Physical Health Manifestations**

In addition to sleep, there are direct physical health effects of excessive use of social media. Medical students who spend so much time on social media complain of thumb and wrist pain, eye fatigue, cervical spondylosis, back pain. An analysis of medical students demonstrated that social media addiction and low sleep quality, morning use of social media, eye discomfort, and compulsive posting of photos have significant correlations. These physical expressions cause a series of health effects that deteriorate health and academic performance.

Besides sleeping problems, overuse of social media has been associated with physical health problems, such as visual fatigue, headaches, and musculoskeletal pain. Such effects could be due to excessive screen time and inactivity. These physical consequences, although less often highlighted, play a role in general decreases in well-being and academic performance.

Students of secondary schools complain of headaches, eye or neck pain, negative effects on physical activity, and significant negative effects on academic performance (Basodan et al., 2024). The psychosomaticity of such physical complaints, i.e., anxiety and stress cause physical symptoms, reflects the interconnected mind-body effects of problematic social media use.

## **3.4. Academic Performance: Direct Effects and Mediating Mechanisms**

### **3.4.1 Direct Impact on Academic Achievement**

Social media adversely affects academic performance, and its effects take place in various direct ways. Among high school students, significant proportions thought that frequent use of social media has a negative impact on academic performance, and recreational use patterns prevail in the use of social media compared to academic use patterns (Yusuf et al., 2024). Likewise, among medical students, intensive users demonstrated often missed classes, classroom disruption, and under-achievement with gender disparities in the prevalence of addiction (Srinivasulu et al., 2024).

The correlation between the amount of social media use, addiction, and academic performance in a medical school setting showed that excessive social media use disrupts study time and concentration on academic work. Nevertheless, it was not consistently found that social media addiction was linked to academic performance in terms of grade point average in all studies, implying that indirect processes might mediate these relationships. The patterns of social media use that were found to have gender differences in influencing academic performance indicated that gender-sensitive intervention strategies and gender-appropriate intervention strategies should be used.

### **3.4.2 Time Management, Procrastination, and Attention Deficits**

Academic procrastination is an important mediating variable by which the use of social media adversely affects academic performance. A study on undergraduate students revealed that poor time management and social media addiction are significant predictors of academic procrastination, and students who exhibited poor time management and high social media addiction levels exhibited the highest procrastination behaviors. The dependence on social media shows that it is positively correlated with academic procrastination, time management tendency mediates this relationship.

Social media dependency on short video has a significant influence on academic procrastination negatively by causing negative emotional experiences. The academic procrastination scores of female college students and arts students are found to be much higher than those of their counterparts, and social media dependency predicts procrastination in non-emotional channels. These results indicate that the effect of social media on academic performance is mediated by various cognitive and emotional processes.

Some psychological constructs mediate the association between academic productivity and social media use, to some extent. The higher the social media addiction, the lower the self-reported productivity scores and psychological depletion exhibits partial mediating roles. Such results indicate that the effects of social media on academic performance are mediated by cognitive depletion processes that demand self-regulation.

### **3.4.3 Attention Span, Focus, and Learning Outcomes**

Overuse of social media has quantifiable impairments in attention and cognitive ability. In a group of students surveyed on the impact on attention span, the numbers of those with diminished concentration are quite high, with correspondingly high percentages of the students responding that their grades dropped due to the use of social media. The researcher conducted a study on college graduates, and most of them reported that it had a negative impact on their focus capacity, and similarly high percentages reported that social media impacted their academic success negatively.

The distraction mechanisms are performed both environmentally and psychologically. The social media systems are algorithmically structured in such a way that they maximize interactions and the number of notifications, which make it impossible not to be interrupted during the study time. Also, the expectancy of notifications causes the brain to engage in reward seeking circuits, which impair the ability to sustain attention. Teachers complain of rising short attention span and poor school performance with the growing classroom engagement problems (Dumitru, 2024).

### **3.4.4 Dual Effects: Positive Academic Benefits**

Although the negative impacts are more, there are some academic advantages of using social media. YouTube and WhatsApp are used to support additional classroom learning and collaboration in assignments, and high percentages of students have acknowledged benefits of accessing educational resources and benefits of peer collaboration (Kumar, 2024a). The use of social media as a means of digital literacy development is beneficial to certain students, especially when they have access to quality learning materials and teacher support (Kumar, 2024a).

Nevertheless, moderation is the crucial factor which is balanced use. Secondary student study revealed that the use of social media did not significantly correlate with mathematics performance when the use was moderate and mainly passive, implying that the dose and nature of engagement have a positive or negative effect on performance (Adesina and Olaove, 2024). There are both positive and negative implications of social media use on academic performance. On the positive side, it facilitates access to learning materials, collaborative learning and interaction. Nevertheless, overuse or improper timing, especially when studying or in classroom settings, may cause distraction, short attention span, and procrastination (Ahmed et al., 2024; Favini et al., 2024).

Multitasking with social media can lead to a lack of concentration and inability to maintain attention in the students. There is also evidence that non-academic use during study time is more likely to be detrimental than the total length of time of use. A great percentage of students' report that social media is a hindrance to academic success (Zhang et al., 2024).

The main difference lies in the active learning or passive consumption of social media by students.

## **3.5. Risk Factors, Mediators, and Protective Mechanisms**

### **3.5.1 Individual Vulnerability Factors**

Some demographic and psychological factors enhance the adverse impact of social media. The addiction of female athletes to social media is lower than that of non-athlete females, and the levels of depression, anxiety, and stress are lower among athletes (Shahid et al., 2024). The result underscores the role of structured activity engagement as protection against problematic

social media use. The effects of social media are highly moderated by age and stage of development. Teenagers in middle adolescence are especially susceptible, and hours spent online, the nature of sites used, and no face-to-face communication with peers increase the levels of depression and anxiety.

The patterns of platform selection would indicate varying risk profiles. The likelihood of having poor sleep quality is much higher in TikTok users than in others, indicating that short-form video platforms with auto play and infinite scroll design generate especially compulsive consumption habits (Al-Garni et al., 2024). The use of Instagram is associated with body image dissatisfaction and appearance anxiety, and various platforms are characterized by the different profiles of addiction.

### **3.5.2 Coping Style as Mediating Factor**

The relationship between social media use and psychological distress is greatly mediated by maladaptive coping strategies. Medical students who devoted over two hours a day on social media were positively correlated with maladaptive coping behaviors, especially substance use and behavioral disengagement (Shiraly et al., 2024). Notably, the relationship between social media use among students and psychological distress was completely mediated by maladaptive coping, meaning that empowering students to use proper coping strategies is an effective intervention target (Shiraly et al., 2024).

Social media is a common maladaptive coping mechanism students use to deal with psychological stress and distress, which forms circular patterns of reinforcement, with temporary mood boosting caused by social media use followed by the increased negative affect and further consumption of social media.

### **3.5.3 Sleep Hygiene and Emotional Well-Being Pathways**

Sleep quality is a mediator between the effects of social media on academic performance and mental health. Symptoms of anxiety linked to online learning had a direct effect on academic performance during the pandemic, and interventions aiming at full recovery of sleep quality proved to be effective (Martins et al., 2024). The systematic review of various studies revealed that most of the most frequently studied outcomes were anxiety, depression, and stress, and improvements in sleep quality were linked with decreased mental health symptomatology (Martins et al., 2024).

Exercise shows great protective value against the adverse effects of social media. A review of recent articles in the form of a narrative review found that physical activity and exercise counteract the adverse effects of smartphone addiction, and several articles highlight the positive impact. This observation offers viable intervention advice to students who aim at reducing the impact of addiction.

### **3.5.4 Social Support and Digital Literacy**

Social support is a strong mediator of mental health outcomes of social media. The negative effects of emotion dysregulation on depressive and anxiety symptoms were mitigated by social support in models investigating the influence of social media victimization, indicating that social support systems including peers and institutions are important in buffering against depressive and anxiety symptoms.

Media literacy and digital literacy programs prove to be effective in decreasing problematic use patterns. Media literacy interventions aimed at training youths to become critical thinkers can ease the influence of social media to conform to unrealistic beauty standards and curated lifestyles on social media (Hussain and Shahid, 2024). Schools that include media literacy in their curriculum show better results in students in differentiating between genuine relationships and acting performances on social media.

## **4. Discussion**

The results of this review indicate the multidimensional character of the social media use among students, and that its impact cannot be explained in terms of a mere positive/negative dichotomy. Rather, the data always indicate that the effects of social media are determined by use patterns, psychological involvement, and contextual aspects.

Among the most valuable lessons learned during the reading is the distinction between active and passive use. Passive consumption, which is defined by scrolling and observational behavior, is more closely linked with negative psychological consequences, such as anxiety and depressive symptoms. Active and purposeful engagement, in turn, including communication, collaboration, and content creation, seem to have potential benefits, which include peer support, less loneliness, and academic interaction. This difference makes the argument that the manner in which students use social media is more significant than the quantity of time students use social media.

These patterns are further explained by the theoretical perspectives. The Social Comparison Theory can be used to understand how the exposure to idealized online material fosters anxiety, depression, and body image issues. Simultaneously, Uses and Gratifications Theory emphasizes that students are willing to utilize social media with the purpose to satisfy their needs: belonging, self-expression, and information search. The literature however indicates that these motivations may change to maladaptive when engagement is compulsive or based on emotions. Specifically, fear of missing out (FoMO) becomes one of the key psychological processes that can be connected to the use of social media and compulsive checking, emotional distress, and sleep disturbance.

One of the major contributions of this review is that it identified the mediating mechanisms that can be used to explain the influence of social media on mental health and academic performance. Emotional investment, compulsive use, and diminished self-regulation seem to be crucial factors enhancing the negative outcomes. These results show that mere measures of length are not adequate, but psychological dependence and patterns of involvement are more indicative of damage. On the same note, cyber bullying, social comparison and maladaptive coping mechanisms also increase susceptibility to anxiety and depression.

Sleep disturbance is one of the most significant channels by which social media impacts well-being and academic achievement. The literature is constant with nighttime use, cognitive stimulation, and constant connectivity disrupting the quality of sleep. In its turn, poor sleep has a negative impact on attention, emotional regulation, and learning capacity, which implies that sleep serves as a mediating factor between social media use and academic decline. This interrelationship supports the importance of studying behavioral health and academic outcomes in a context of each other, not separately.

The results also point out the paradox of connectivity in which more digital interaction does not always mean a significant social connection. On the one hand, social media allows connecting with others and building networks; on the other hand, overuse and abuse can cause social isolation, mental exhaustion, and poor well-being. This contradiction highlights the need to learn how to differentiate between shallow interaction and real interaction in online spaces. Both positive and negative mechanisms also influence academic outcomes. On the one hand, social media offers access to learning materials, collaborative learning, and peer support, which may be used to boost motivation and engagement. Conversely, overuse or untimely use leads to distraction, lack of concentration, procrastination and poor academic achievement. Interestingly, the literature indicates that non-academic use during study time is more negative than total time of use, which means that context and timing are paramount factors.

The other valuable lesson is the presence of individual and contextual moderators. The direction and the magnitude of the outcomes depend on gender differences, stage of development, type of platform, coping styles, and social support. Indicatively, female students

seem to be more susceptible to social comparison and body image issues whereas students who have a strong social support and adaptive coping skills are more resilient. Likewise, the characteristics of platform design-infinite scrolling and content-driven by algorithms- can also increase compulsive use and risks.

All in all, the results indicate that social media cannot be considered as the harm or benefit in itself. Instead, it serves as a behavior amplifier, with results contingent on user attributes, usage patterns, and the environmental setting. This view changes the emphasis on limiting access to encouraging balanced and meaningful interactions, with the help of digital literacy, self-regulation, and institutional guidance.

## **5. Interventions, Recommendations, and Future Directions**

### **5.1 Evidence-Based Interventions**

Multilevel intervention programs that deal with several levels of influence are the most effective. A counseling package built around lived experiences of students includes behavioral, cognitive, emotional, relational, and motivational aspects (Brojerdi et al., 2024). This multidimensional intervention has been developed to deal with the complexity of academic procrastination by focusing on sleep and time management, error correction and focus enhancement, stress reduction and motivation increase, peer-teacher-family communication, and goal-setting and self-efficacy (Brojerdi et al., 2024).

The awareness and educational programs that directly target social media risks show quantifiable effect. Universities that have opened workshops and conferences regarding social media issues, as well as suggestions by faculty on using it properly, achieve better student outcomes (Yusuf et al., 2024). In the case of medical students, empowerment of students to embrace and nurture the right coping mechanisms increases resilience to life stresses and alleviates the possible long-term mental health effects (Shiraly et al., 2024).

There are new prediction capabilities with machine learning applications. High accuracy in detecting mental health problems in college students was obtained with the help of advanced algorithmic models that were trained on academic data, social media activity, and textual survey responses (Waiker et al., 2024). These predictive tools will allow identifying at-risk students early in order to intervene with them.

### **5.2 Institutional and Policy-Level Recommendations**

Learning institutions ought to have policy interventions and support mechanisms. Before bedtime, schools need to be informed about the harmful impact of using electronic devices, and it is suggested to reproduce the studies on sleep quality in various schools (Alrasheed, 2024). Universities need to create awareness programs incorporating social media topics into health education courses and developing counseling services for mobile phone use management (Kumar, 2024b).

Core mechanisms of harm are addressed by interventions of targeted time management and digital well-being programs. It is suggested that awareness programs need to be implemented, digital well-being should be promoted, face-to-face communication should be encouraged, and counselling service should be offered to students to be able to manage the use of mobile phones (Kumar, 2024b). Learning administrators should adopt specific measures and comprehensive social education policies that will avert smartphone overuse and pejorative effects among the youth (Angheliescu et al., 2024).

Platform-level alterations and media content moderation need to be addressed. Social media platforms should be more inclusive and diverse in body image representation, have more effective cyberbullying prevention systems, and lessen the amplification of social comparison-inducing content by the algorithm (Hussain and Shahid, 2024). Such changes in the platforms must be coordinated among the technology companies, educators, policymakers, and mental health professionals.

### **5.3 Family and Parental Involvement**

Parents have crucial roles to play in advising ethical use of digital. Studies indicate that adequate family intervention and education about the dangers of excessive mobile use is essential in reducing the problematic use effects (Medrano-Sánchez et al., 2024). Teachers and parents work together to reduce negative effects of social media by providing guidance, instruction, and education on the dangers, and by actively promoting ethical conduct by providing support and proper guidance.

The parents play a significant role in problematic use patterns. Nevertheless, large proportions of secondary school learners state that parents are unaware of their use of the internet, which is a critical failure point in the protection of families. Parental digital literacy/engagement interventions are found to be needed in order to reinforce family-level monitoring of social media use.

### **6. Future Research Directions**

There are some large research gaps that should be considered. Studies that follow individuals through academic years would help understand the developmental patterns and establish the periods of high vulnerability. The qualitative study of the subjective experience of students regarding the use of social media and mental health would offer a more detailed insight into the mechanisms.

The cross-cultural studies are still few and far between and most of the studies are focused in particular geographical settings. Future studies ought to look into the effects of social media in a variety of different cultural contexts with varying patterns of social media use and mental health models (Judijanto et al., 2024). Randomized controlled trials to evaluate specific interventions should be implemented to give more solid evidence to guide recommendations.

Also, the studies on the beneficial applications of social media to academic learning, peer support, and mental health awareness should be extended to offer a balanced viewpoint. Knowing when and how social media can be used to support positive outcomes, as opposed to the more narrow-minded attention on harms, would offer better informative advice to students, educators, and policymakers.

### **7. Conclusion**

The 2016-2024 literature provides strong evidence that the harmful and excessive use of social media has far-reaching and significant consequences on the behavioral health and academic performance of students on several levels. The prevalence rates of depression and anxiety among heavy users are alarming, sleep disturbance is impacting significant percentages of students, and deterioration of academic performance is impacting more than half of users, all of which reveal the severity of these issues. The study finds that the impact of social media works via interrelated psychological mechanisms that include emotional dysregulation, social comparison, and sleep disturbances, and the mediation patterns indicate that interventions that address the intermediate mechanisms can be effective.

But the image that has been created by the recent studies goes beyond mere causality. The interaction of social media with student outcomes is dual nature: platforms both promote collaboration among peers and exert social comparison pressure, serve as educational resources and create distraction, and create social connection and isolation. The outcomes are significantly moderated by individual differences in vulnerability such as age, gender, platform choice, and preexisting mental health status. Protective variables such as physical activity, social support, digital literacy, and proper coping mechanisms prove to be able to counter the adverse effects (Angheliescu et al., 2024).

Going forward, a multidimensional, integrative, and multi-stakeholder strategy that involves the students, families, educational institutions, technology platforms, and policymakers is the necessary gateway to ensuring healthy social media use. Interventions should target cognitive

processes, emotional processes, behavior, and social situations. With social media constantly changing and incorporating new features and platforms to help users achieve the best possible engagement, constant research, constant policy adjustment, and adaptive intervention creation will be essential to safeguard the health of students and their academic performance in the digital era.

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